Analysis Report about Amber Heard

2021 Reddit Contributions

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Introduction

Note: This report is a part of **Case Study: "Reddit Social Network Analysis Against Influence Operation"**

By analyzing accounts posting/commenting against a victim of a Social Bot Disinformation/Influence Operation.

We have four main datasets scraped from Reddit

- 1. A dataset with submissions & comments data (2021).
- 2. Users Data (from 2006 to 2021).
- 3. A merged dataset (submissions & comments data, users data).
- 4. Daily creation data (# of accounts created per day from 2006 to 2021).

The data Timezone is Epoch/UTC.

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Overview

About **20%** of 2021 **submissions** were made by **banned**[1] and **unverified** accounts.

Stats of unverified[2] accounts

- count 2078.000000
- mean 16.089028
- std 121.927349
- min -73.000000
- 25% 1.000000
- 50% 2.000000
- 75% 6.000000
- max 3745.000000

- The percentage of 2021 **contributions** made by **Unverified** accounts **11.37%**
- Total **unverified** accounts **contributions** in 2021 **2082.**
- Total **unverified** accounts **comments** in 2021 **1939.**
- The percentage of 2021 **submissions** made by **Unverified** accounts **7.43**%
- About **20%** of 2021 **submissions** were made by **banned** and **unverified** accounts.
- **My_pp_big_and_hard** is posting sexual comments so has the least karma score.

Statistics of Banned accounts

- **count** 1315.000000
- **mean** 42.793156
- **std** 455.733256
- **min** -189.000000
- 25% 1.000000
- 50% 2.000000
- 75% 7.000000
- max 11476.000000

- The percentage of 2021 contributions made by **Banned** accounts **7.23%**
- Total **banned** accounts **contributions** in 2021 is **1323.**
- Total banned accounts comments in 2021 is **1095.**
- The percentage % of 2021 **submissions** made by **Banned** accounts **11.84 %**
- Total **banned** accounts **submissions** in 2021 **228.**

[1] This user banned from reddit
[2] The user has not verified mail for this account.

Top users statistics:

- **My_pp_big_and_hard**[3] is posting sexual comments so has the least **karma score**.
- "**90police**": this user made 17 submissions within only 5 minutes ('Amber Heard Touching Herself').
- "**Truthbetheprejudice**": this user made 4 submissions with the same text "**Remove Amber Heard from Aquaman 2**" within only **30 seconds**!!
- "**the-speed-of-pain**": this user made 2 submissions with the same text "**Remove Amber Heard from Aquaman 2**" within only **3 seconds**!!

It is obvious, it is a campaign to remove AH from the movie.

Statistics over years.

- More than 60% of 2021 Contributions were made by newly created accounts (last 4 years) .
- There are **no submissions** made (on the peak day of 2021) from **2018, 2019 accounts** on that day. ***Submissions are only made by accounts created in 2020 & 2021***

New accounts Last 4 Years

- Total contributions in 2021 made by newly created accounts(last 4 years): **9759**
- **The percentage % of 2021 contributions made by newly created accounts(last 4 years 53.3**
- **Total comments in 2021 made by newly created accounts(last 4 years) 8754**
- **Total submissions in 2021 made by newly created accounts(last 4 years) 1005**
- **The percentage % of 2021 submissions made by newly created accounts(last 4 years) 52.21.**

Year	Total contributions number	% of contributions made by this year of users[4]	Total comments number	Total submission number	% of submissions made by this year of users
2018	1807	9.87	1718	89	4.6
2019	2857	15.6	2649	208	10.81
2020	3859	21.08	3494	365	18.96
2021[5]	1236	6.75	893	343	17.82

[3] Suspected account.

[4] From accounts made in this year.

[5] Till may month

Comparing years results we can conclude that contributions **increase** each year (we can discard 2021 as we know it has not completed records (till may only).

- 2021 accounts contributions scores
  - count 18278.000000
  - mean 23.909892
  - std 374.406745
  - min -517.000000
  - 25% 1.000000
  - 50% 2.000000
  - 75% 6.000000
  - max 29511.000000

Rush Days

In this year the peak dates are:

2021-04-17	1341
2021-02-20	931
2021-02-28	855
2021-05-11	612
2021-03-04	606

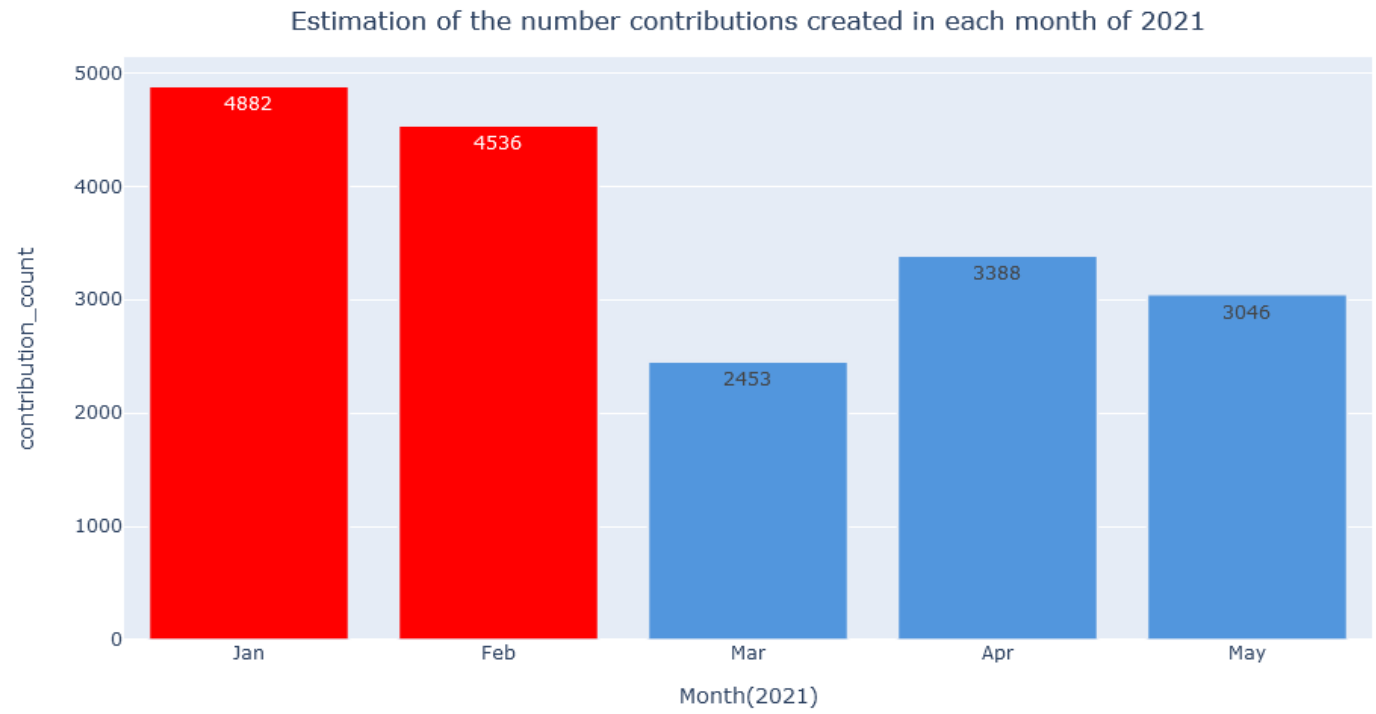
- **Apr 17,2021.**
    - The most active hours (7, 14, 15, 16, 17, 21) with a **negative skew**.
    - 699 contributions were made.
    - Most users created those submissions (299 from 699 ~ **43%**) created accounts in 2020.
    -
- **Feb 20,2021**
    - Most contributions were made at 1 PM, the distribution is between normal distribution and negative skew (as we have a peak on the right of the graph).
    - Most users created those submissions created accounts in 2018, 2019 and 2020.
- **Feb 28,2021**
    - 617 contributions .
    - This year has a **normal distribution** of hours of contribution.

NOTE: In the next part, a deep analysis of peaks will be provided (it has more illustration with graphs).

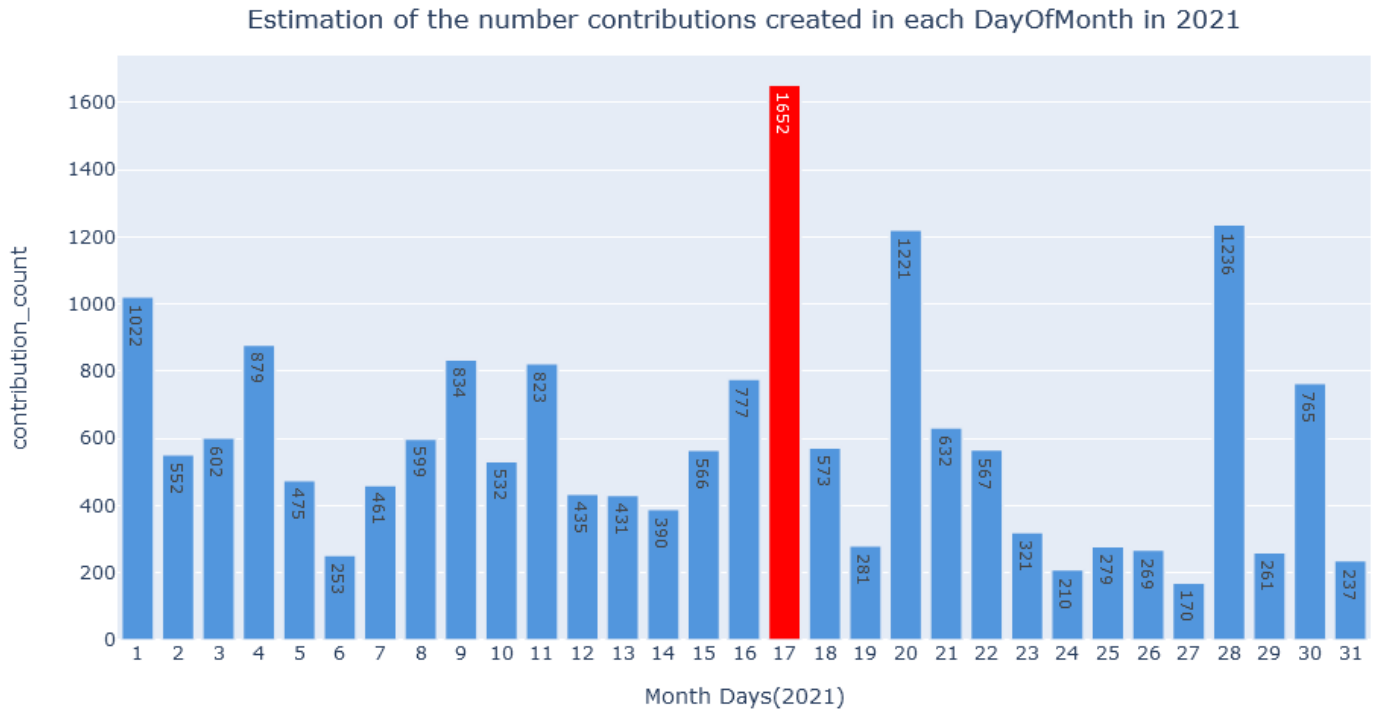
Peaks

Peak month

Contributions count over Months in 2021

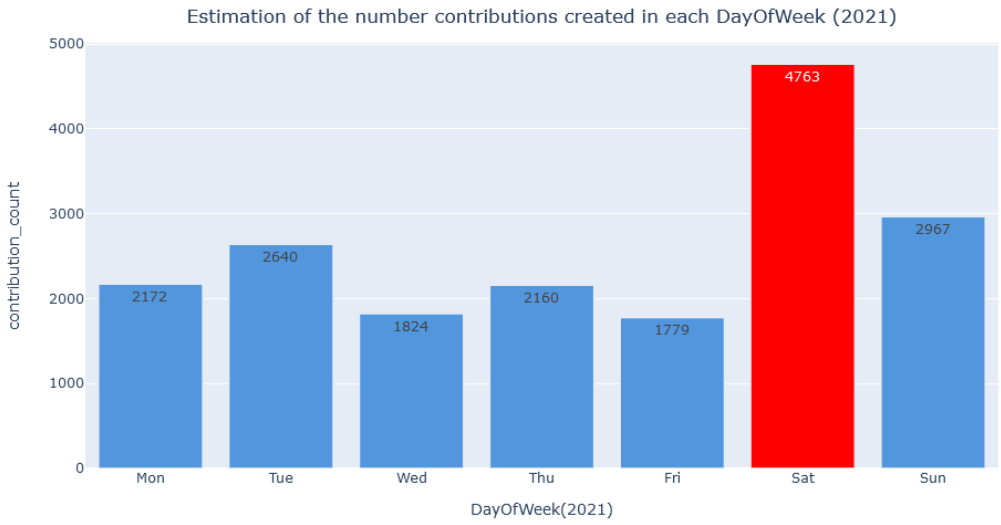


Contributions count over Days of month in 2021

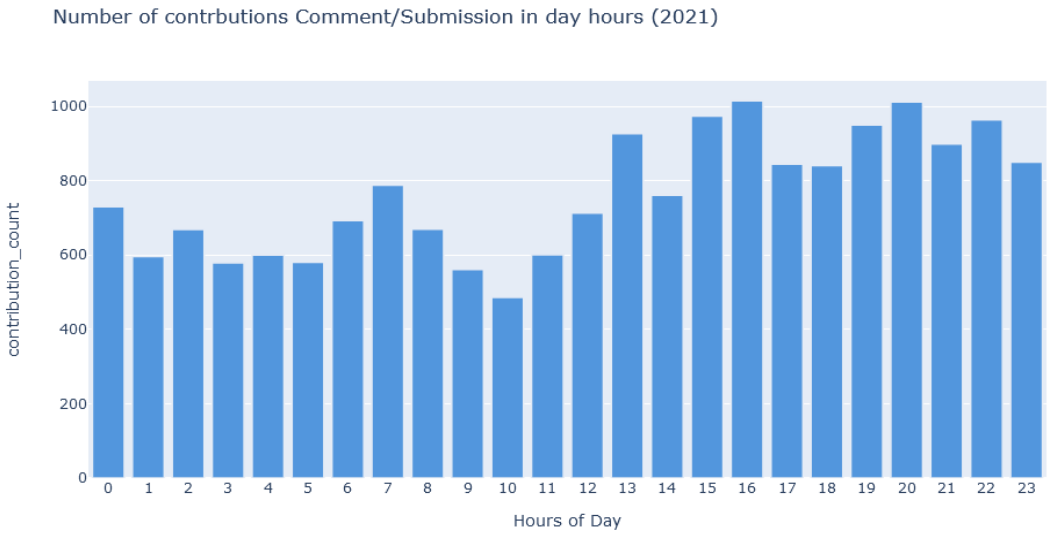


Which DayOfWeek users created more?

- Mon 2172
- Tue 2640
- Wed 1824
- Thu 2160
- Fri 1779
- Sat 4763
- Sun 2967

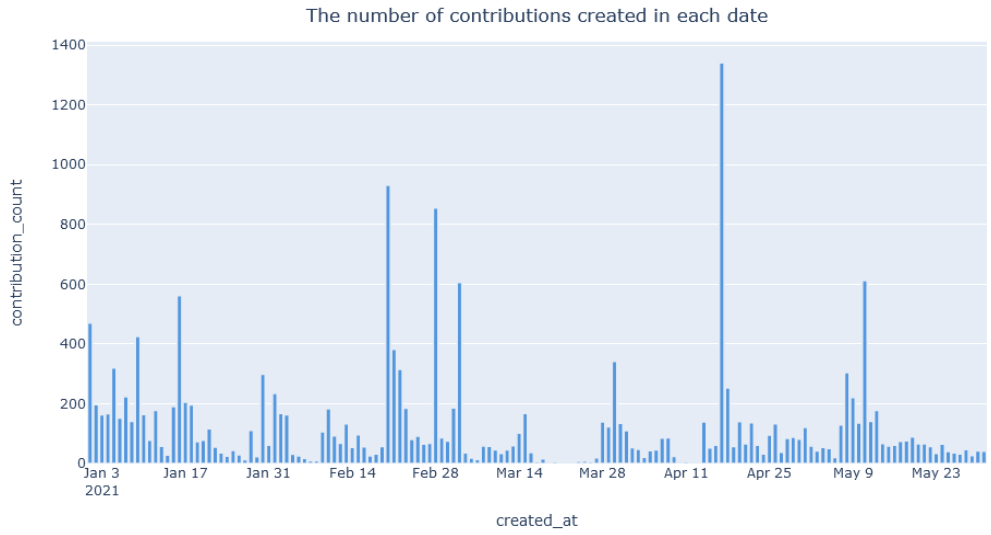


check for the hour the contributions were made (2021)

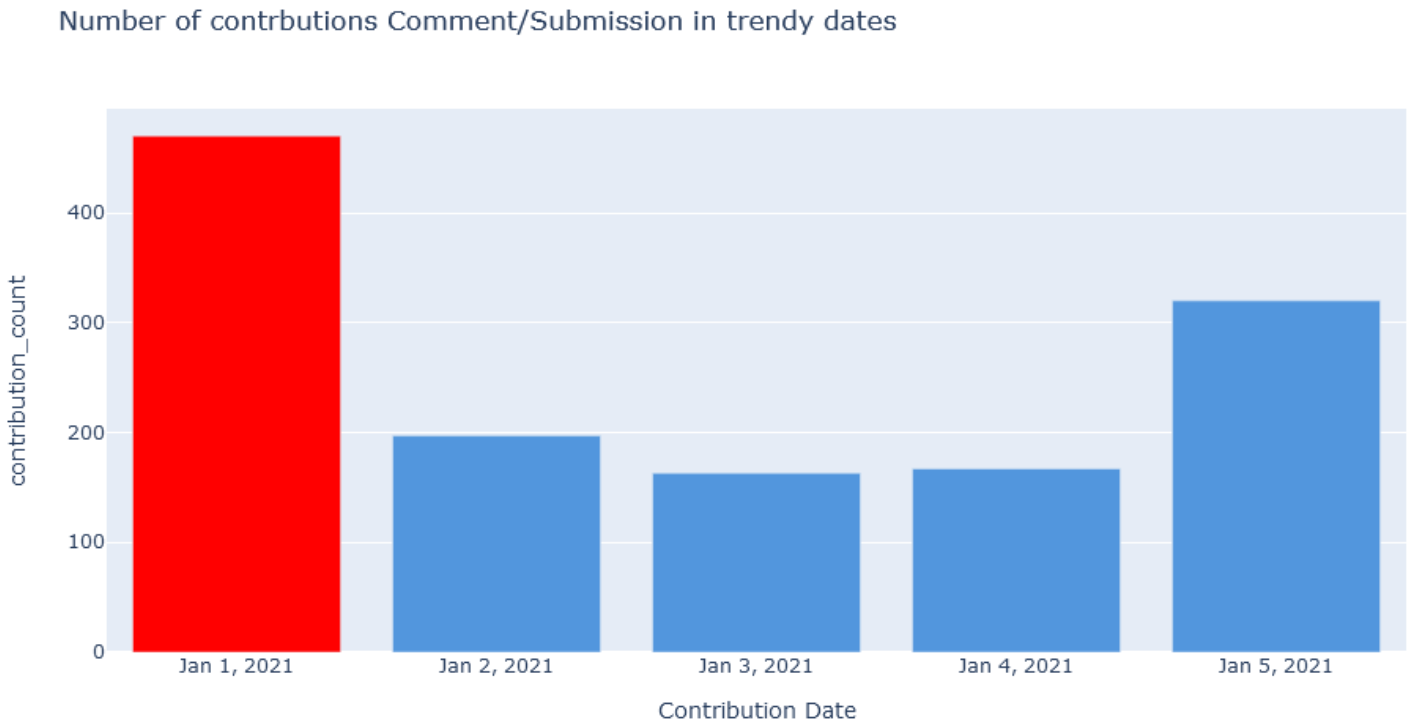


It is weird to find contributions all day.

Which dates have the highest contributions for users?



	created_at	contribution_count
106	2021-04-17	1341
50	2021-02-20	931
58	2021-02-28	855
130	2021-05-11	612
62	2021-03-04	606
...	...	...
80	2021-03-22	3
99	2021-04-10	3
101	2021-04-12	2
79	2021-03-21	2
102	2021-04-13	2

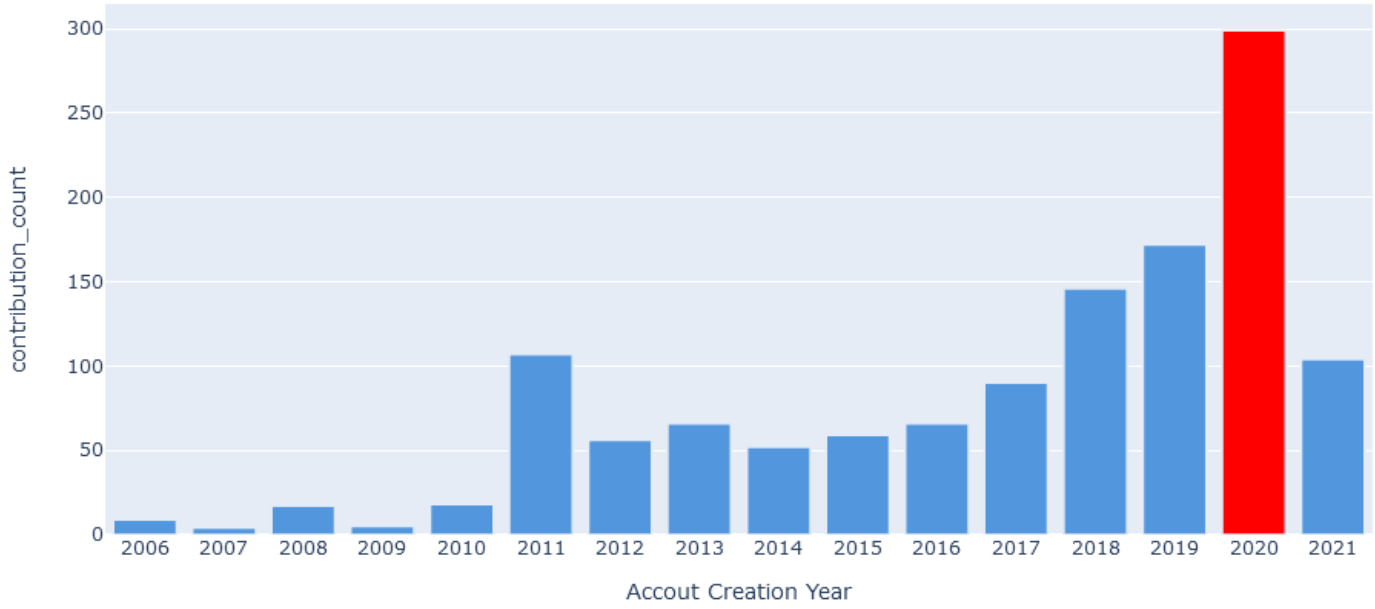


How many users contributed on the peak day (Apr 17,2021)

- 699

And From What Years?

The creation year of the accounts contributed on the peak day (Apr 17,2021)

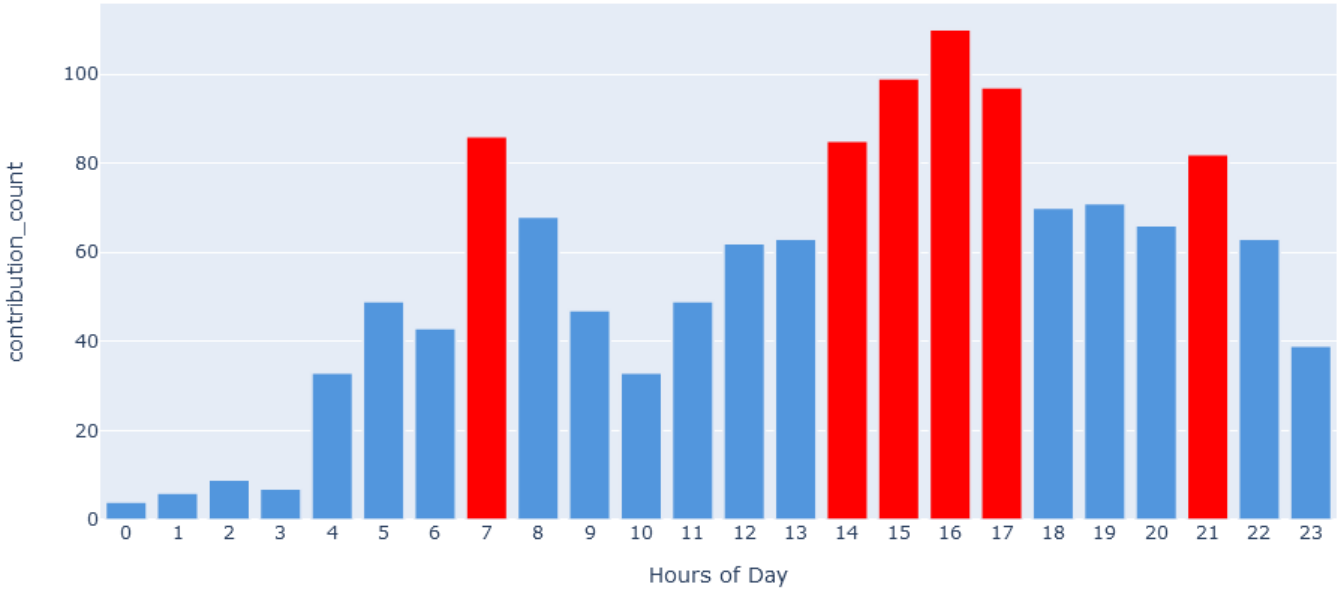


regarding completeness problem of 2021(we have only till may contributions).

We can say it is negatively skewed as recent users made more contributions.

check for the hour the contributions were made on the peak day (Apr 17,2021)

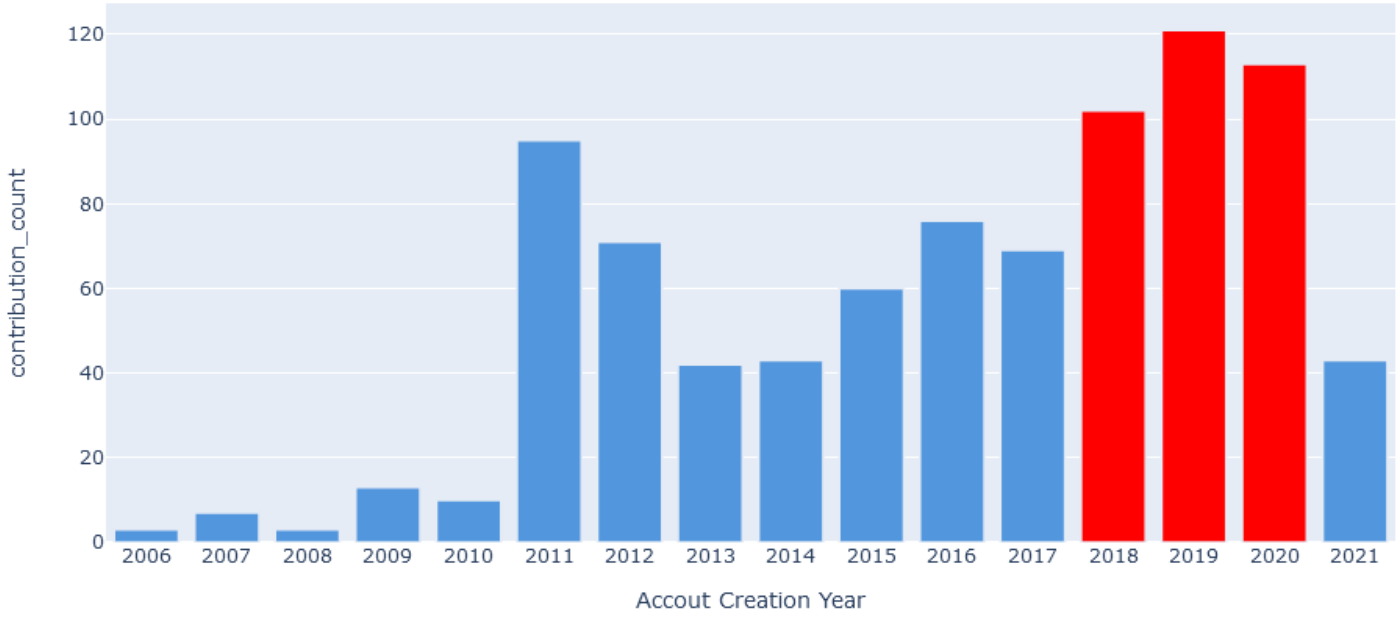
Number of contrbutions Comment/Submission in day hours



How many users contributed on the peak day (Feb 20,2021)

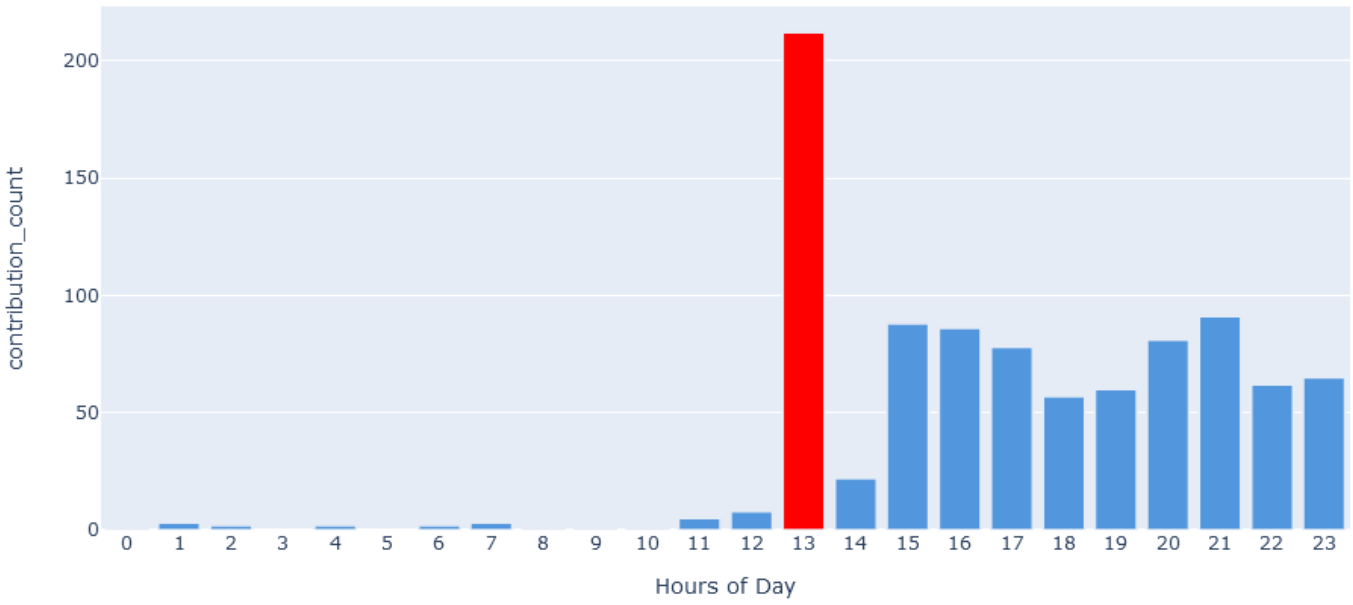
- 626

The creation year of the accounts contributed on the peak day (Feb 20,2021)



check for the hour the contributions were made on the peak day (Feb 20,2021)

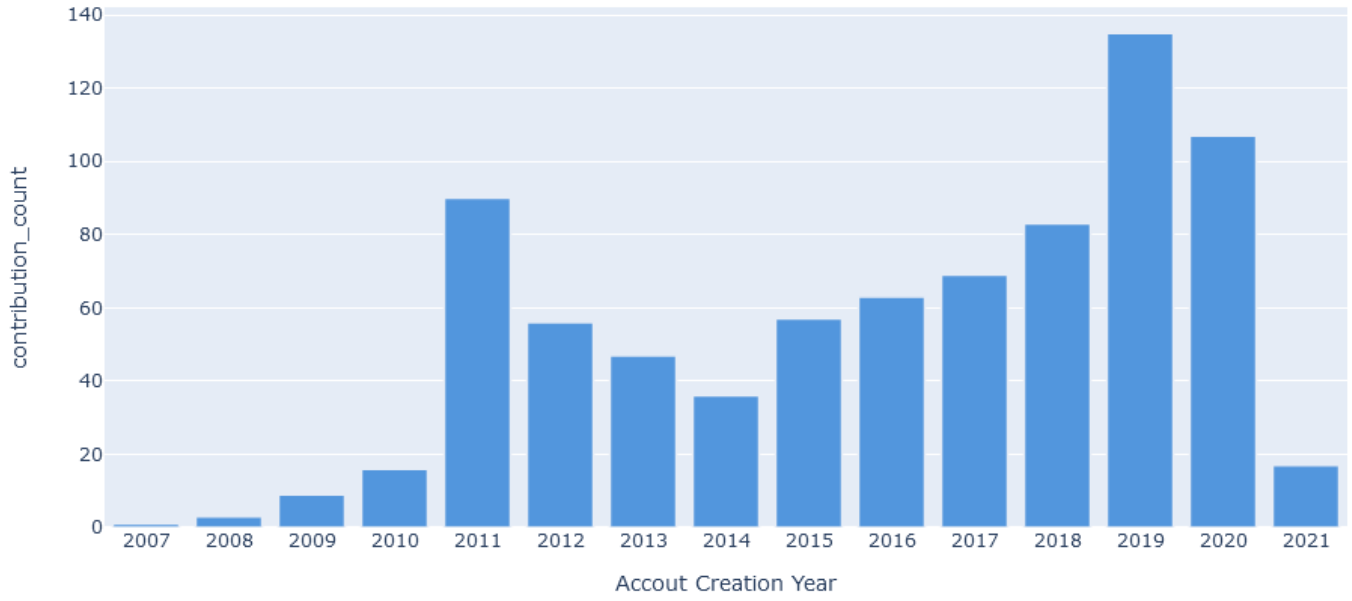
Number of contrbutions Comment/Submission in day hours



How many users contributed on the peak day (Feb 28,2021)

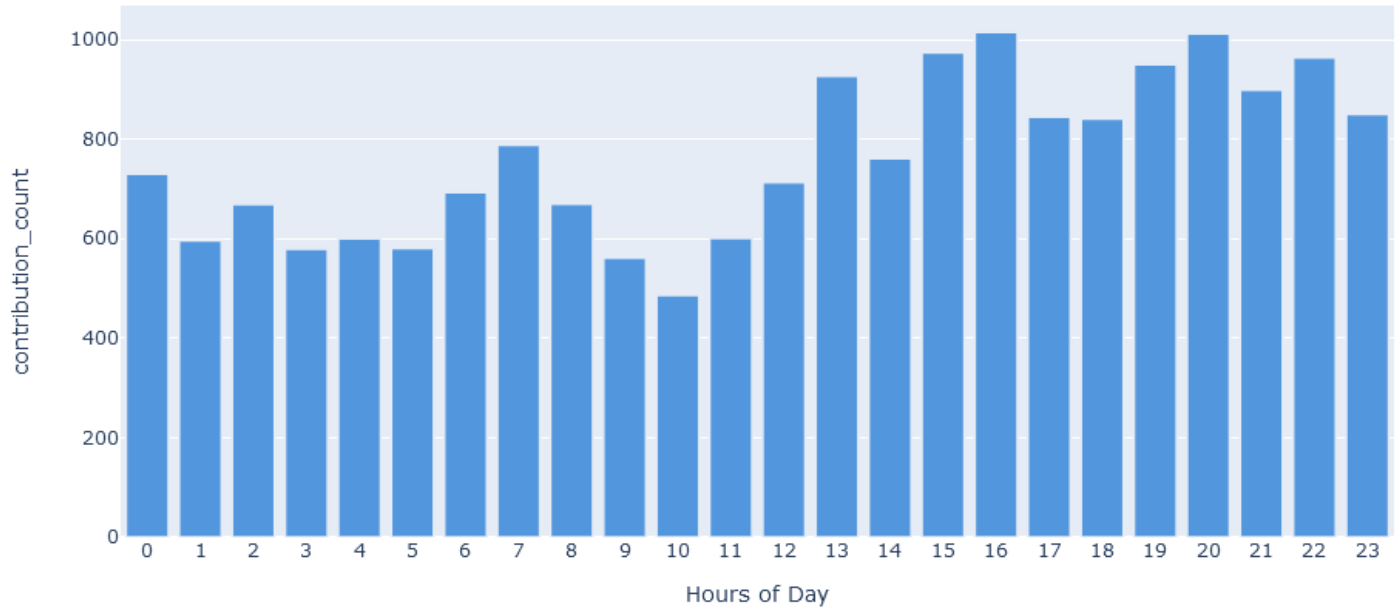
- 617

The creation year of the accounts contributed on the peak day (Feb 28,2021)



check for the hour the contributions were made on the peak day (Feb 28,2021)

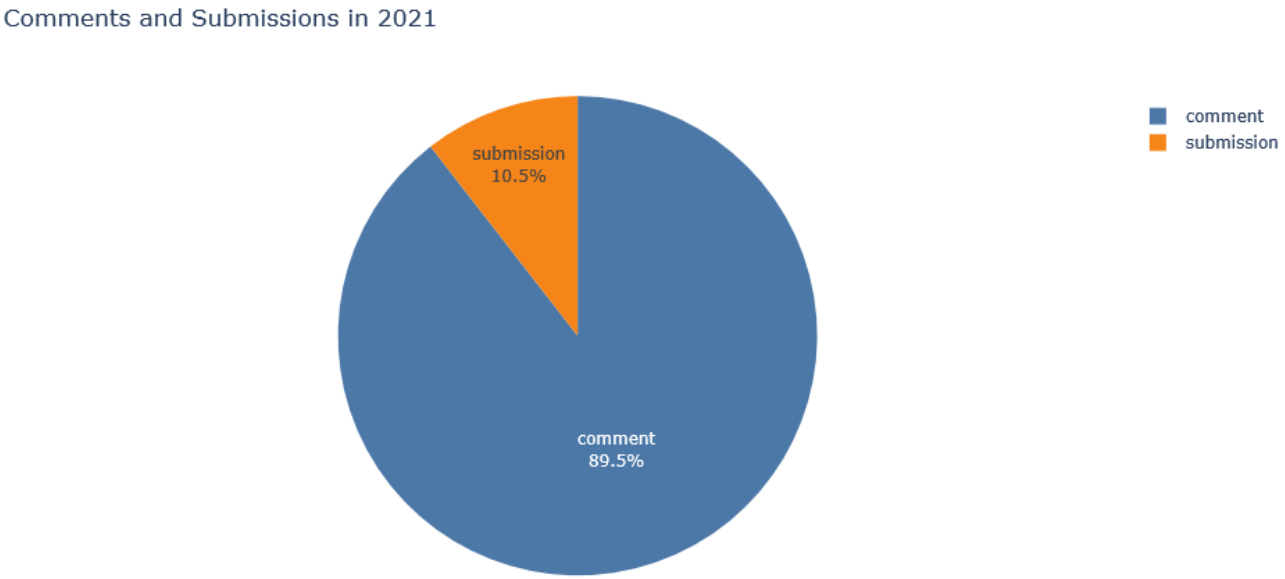
Number of contrbutions Comment/Submission in day hours

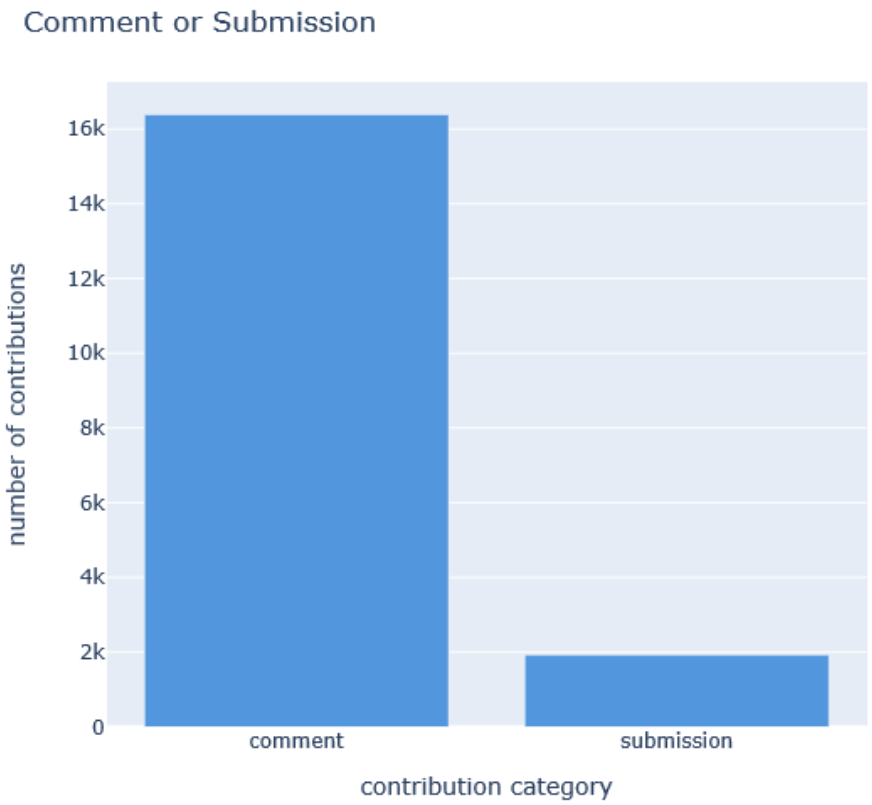


Exploratory Data Analysis

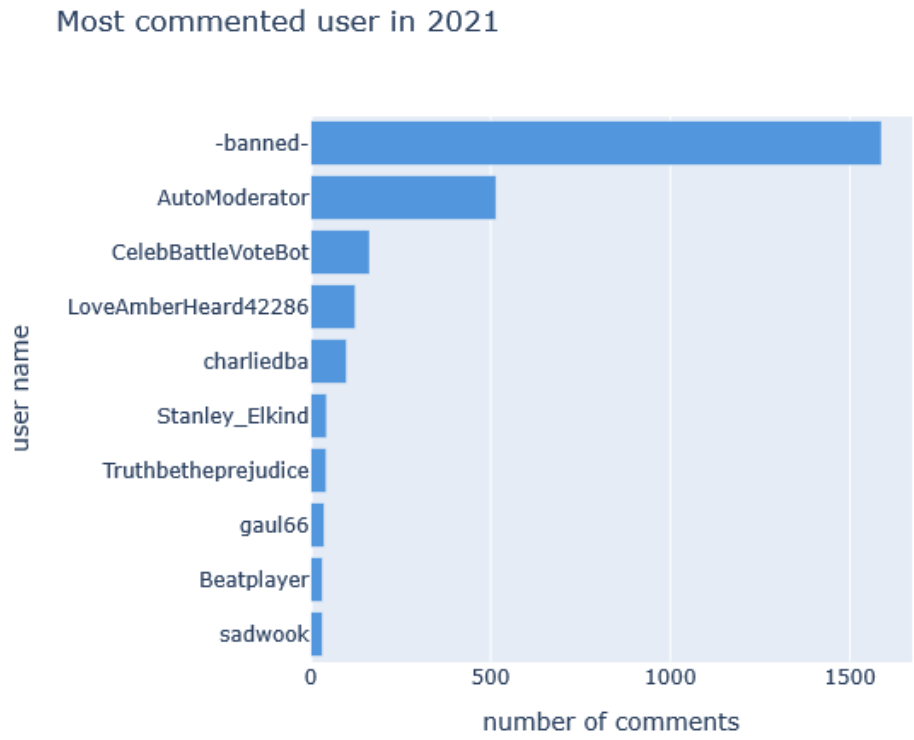
Reddit Contributions (Comments / Submissions)

The # of submissions VS the # of comments





Most contributed user



Further Investigate The Most Commented Users In 2021

AutoModerator

AutoModerator is a system built into reddit that allows moderators to define "rules" (consisting of checks and actions) to be automatically applied to posts in their subreddit.

- **Automoderator** made **515 submissions in 2021** on those subreddits:

```
- r/JerkOffToCelebs      176
- r/memes                 55
- r/Celebhub              48
- r/unpopularopinion      32
- r/AskReddit             30
-                        ...
- r/FamosasGostosas        1
- r/comics                 1
- r/AmateurAsianGirls      1
- r/JusticeServed          1
- r/FemaleDatingStrategy   1
```

CelebBattleVoteBot

This is a vote bot

- **CelebBattleVoteBot** made **163 submissions in 2021** on those subreddits:
    - r/CelebbattlePolls 83
    - r/CelebBattles 79
    - r/JerkOffToCelebs 1
- **Sample** of submissions:
    - Anne Hathaway vs Amber Heard
    - Amanda Seyfried VS. Amber

charliedba

Positive Submissions, it is obvious from submissions that this users posts images for Amber.

- **charliedba** made **99 submissions in 2021** on those subreddits:
    - r/Amber_Heard_2 80
    - r/Amber_Heard 7
    - r/UHQcelebs 3
    - r/HighResCelebs 3
    - r/BeautifulFemales 2
    - r/FamousFaces 1
    - r/Celebs 1
    - r/Celebhub 1
    - r/PrettyWomen 1

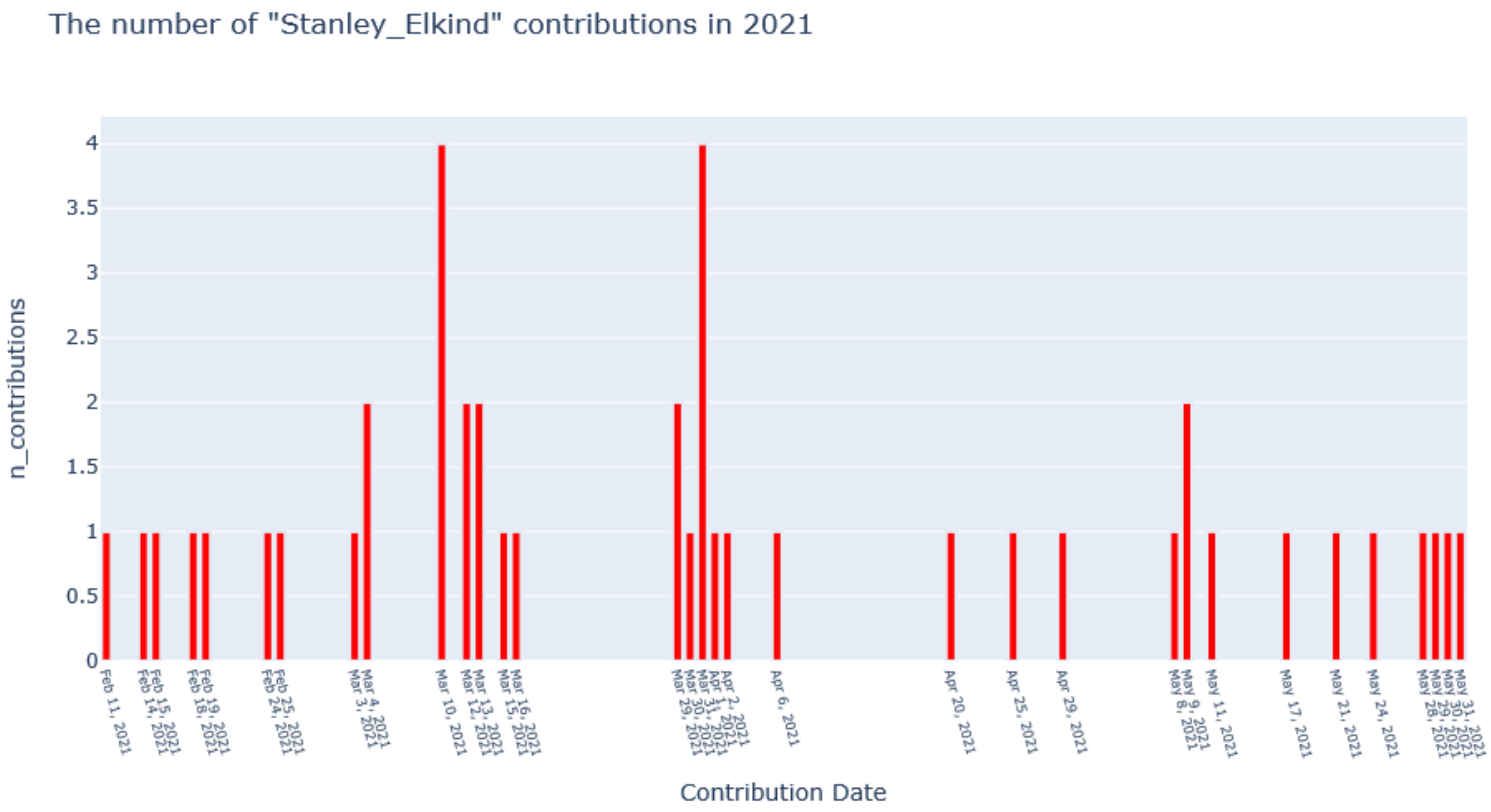
- **Sample** of submissions:
    - Amber Heard 31
    - Stunning Amber Heard 4
    - Gorgeous Amber Heard 3
    - Amber Heard [2100 x 3150] 3
    - Cute Amber Heard 3
    - Angelic Amber Heard 3
    - Amber Heard collage 2
    - Amber Heard [irtr] 2
    - Amber Heard [High Resolution] 2
    - Young Amber Heard 2

Stanley_Elkind

posting negative comments (related to sex).

- **Stanley_Elkind** made **44 submissions in 2021** on those subreddits:
    - r/JerkOffToCelebs 36
    - r/pickoneceleb 3
    - r/CelebWouldYouRather 2
    - r/CelebAssP*ssyMouth 2
    - r/DC_Cinematic 1

- **Sample** of submissions:
    - I'm too horny to say no to her.
    - **"u r goin to jail 4 lyfe". Weird submission(comment)?**



It is a regular contribution rate, as the maximum contributions over days are 4.

LoveAmberHeard42286

Positive Submissions.

- **LoveAmberHeard42286** made **124submissions in 2021** on those subreddits:
    - r/JerkOffToCelebs 85
    - r/Celebhub 26
    - r/gentlemanboners 4
    - u/LoveAmberHeard42286 2
    - r/unpopularopinion 2
    - r/celebgifs 1
    - r/Amber_Heard 1
    - r/IStandWithAmberHeard 1
    - r/Celebs 1
    - r/Celebrityfemdom 1
- Sample of submissions:
    - Amber Heard

      72
    - Amber Heard 💜

      6
    - Amber Heard ❤

      5
    - She's an abuse victim as multiple judges have agreed on based on evidence. And what you're talking about is rape. You need to take a look at yourself before casting stones at someone else.

      2

	created_at	n_contributions
17	2021-03-15	9
11	2021-03-08	8
16	2021-03-14	7
33	2021-05-02	7
24	2021-04-14	7
23	2021-04-03	5
0	2021-01-10	5
27	2021-04-22	5
6	2021-02-27	4
12	2021-03-09	4
18	2021-03-16	4

All contributions made in march, april and may(the data till may only)

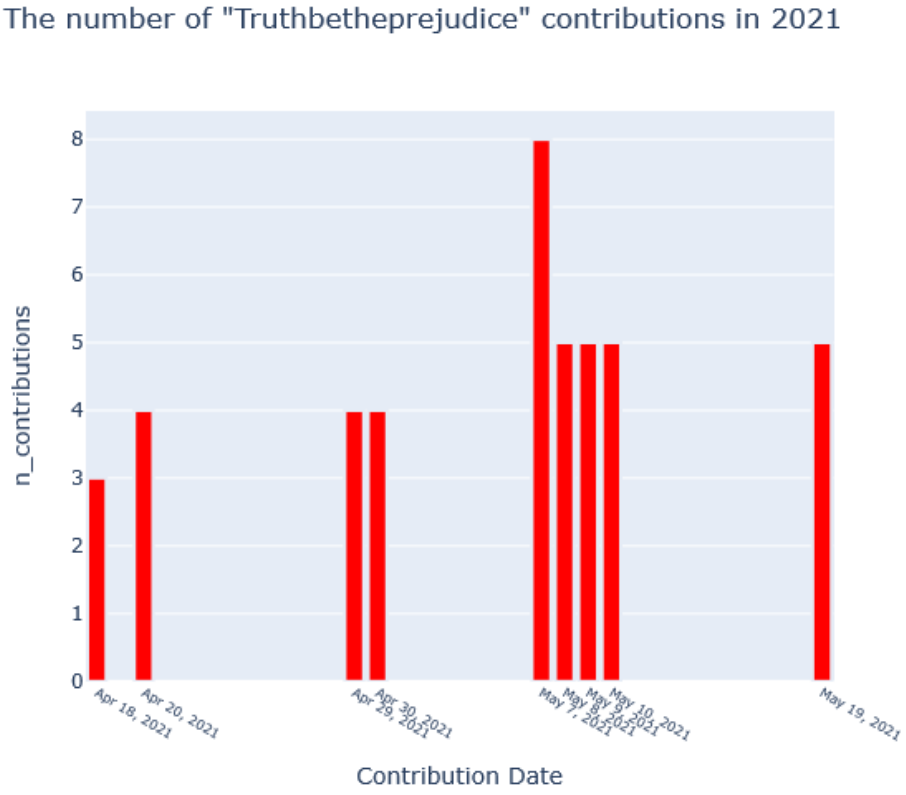
This user was created on 2021-01-07.

Truthbetheprejudice

Negative Submissions.

- **Stanley_Elkind** made **43 submissions in 2021** on those subreddits:
    - `r/movies 10`
    - `r/entertainment 10`
    - `r/MensRights 10`
    - `r/p*ssypassdenied 8`
    - `r/JusticeForJohnnyDepp 5`

- **Sample** of submissions:
    - `Amber Heard probed for perjury and staging 2016 Johnny Depp domestic violence case: 'Lock her up'`
    - `Johnny Depp sues ACLU on to see if ex-wife Amber Heard gave $7m divorce settlement`
    - `Amber Heard Under Investigation for Perjury in Johnny Depp Domestic Violence Case`
    - `Amber Heard to struggle in new LAPD domestic violence probe`



gaul66

voting in a positive way.

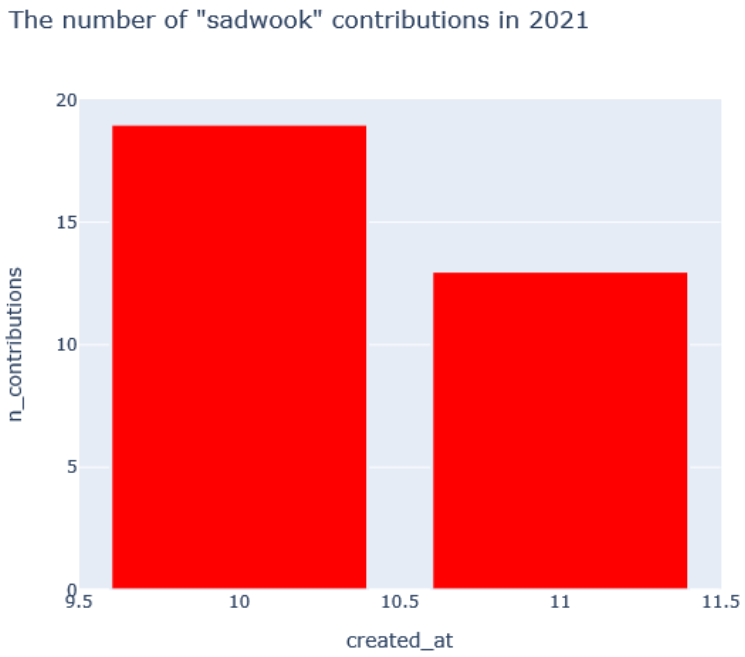
- **gaul66** made **37 submissions in 2021** on one subreddit
    - `r/CelebBattles  37`

sadwook

Negative Comments.

- **gaul66** made **32 submissions in 2021** on one subreddit
    - `r/p*ssypassdenied  32`

- `all this user contributions in 2021 (32) are in the same day 2021-05-11`
- `user created: 2018-12-29 the same date of 2018 peak!!`



Beatplayer

positive Comments

- **Beatplayer** made **32 submissions in 2021** on one subreddit
    - r/TrueOffMyChest 32

Check whether the users with the most contributions are mod[6], gold[7] or having a verified email

- A list with **most 25 contributed authors** was made.
- Checked for the most negative comments users.
- The **most negatively commented users** are (**AutoModerator** and **faithle55**).
- Those are the **characteristics** of the 24 users:
    - **has_verified_email**
        - True 24
    - **is_mod**
        - False 14
        - True 10
    - **is_gold**
        - False 18
        - True 6
    - **is_banned**
        - False 20
        - True 4
    - **Comment_karma**
        - Min → 131

[6] Moderator: A moderator is just a regular redditor like you except with a few humble duties within a particular community

[7] Gold Reddit Gold was a premium membership, which allowed Reddit users a variety of additional features.

        - Max → 328449
        - Mean → 33703
        - Median → 9792.5
    - **Link_karma**
        - Min → 1
        - Max → 32197
        - Mean → 7095.55
        - Median → 1217

    - **Banned_unverified**
        - others   20
        - banned   4

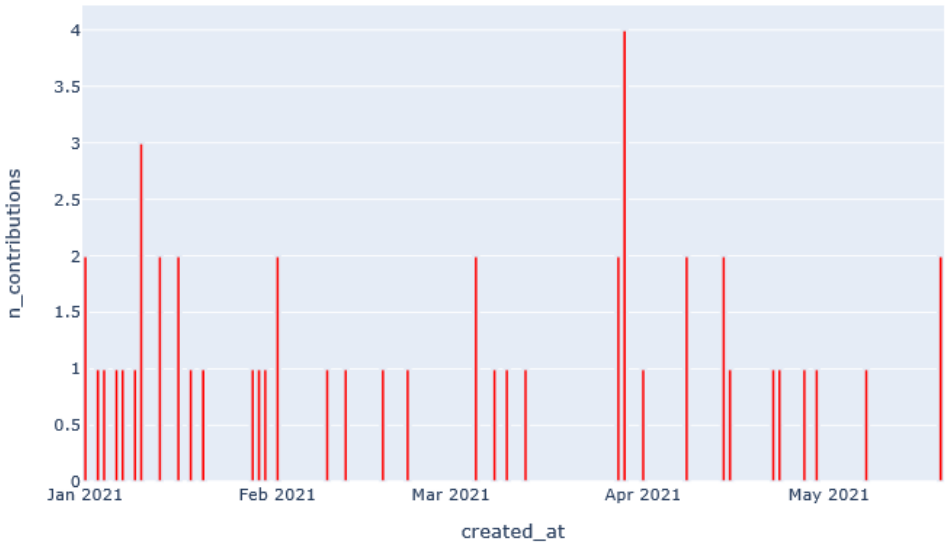
    - **Creation_year**
        - 2019   6
        - 2021   5
        - 2020   4
        - banned   4
        - others   3
        - 2018   2

Investigate the text column

check for the users using the word 'f*ck'

- This word is repeated 1227 times.
- Authors of these submissions having the same submission text "f*ck_amber_heard" are 7 users.
- The authors of these submissions have the same submission text (contains f*ck) 49.

The number of submissions with the word "F*CK" in 2021

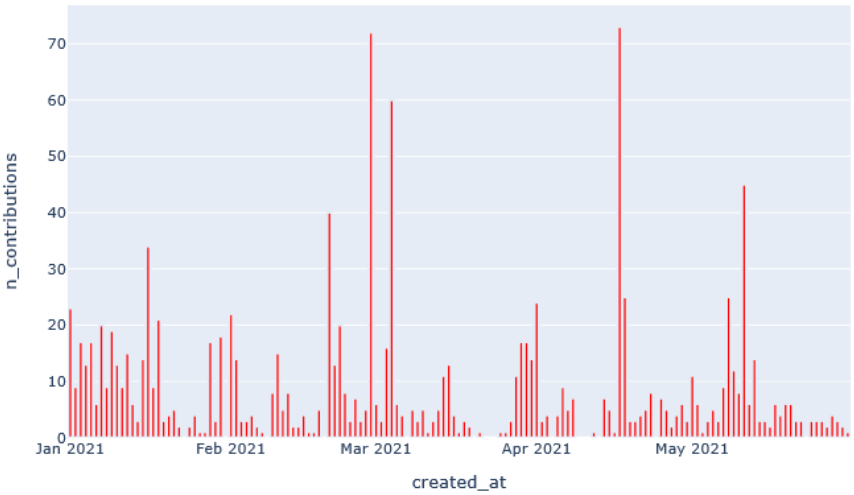


	created_at	n_contributions
24	2021-03-29	4
6	2021-01-10	3
0	2021-01-01	2
14	2021-02-01	2
27	2021-04-14	2
26	2021-04-08	2
23	2021-03-28	2
19	2021-03-05	2
34	2021-05-19	2
8	2021-01-16	2
7	2021-01-13	2

- Top Authors:
  - -banned- 86
  - Jreal22 10
  - Loveseeingthatsmile 6
- Comment or submission:
  - comment 1150
  - submission 77
- Top subreddits
  - r/JerkOffToCelebs 188
  - r/entertainment 154
  - r/p*ssypassdenied 151
  - r/MensRights 82
  - r/TrueOffMyChest 66

The number of "F*CK" contributions in 2021

	created_at	n_contributions
92	2021-04-17	73
54	2021-02-28	72
58	2021-03-04	60
115	2021-05-11	45
46	2021-02-20	40
15	2021-01-16	34
112	2021-05-08	25
93	2021-04-18	25
81	2021-04-01	24
0	2021-01-01	23



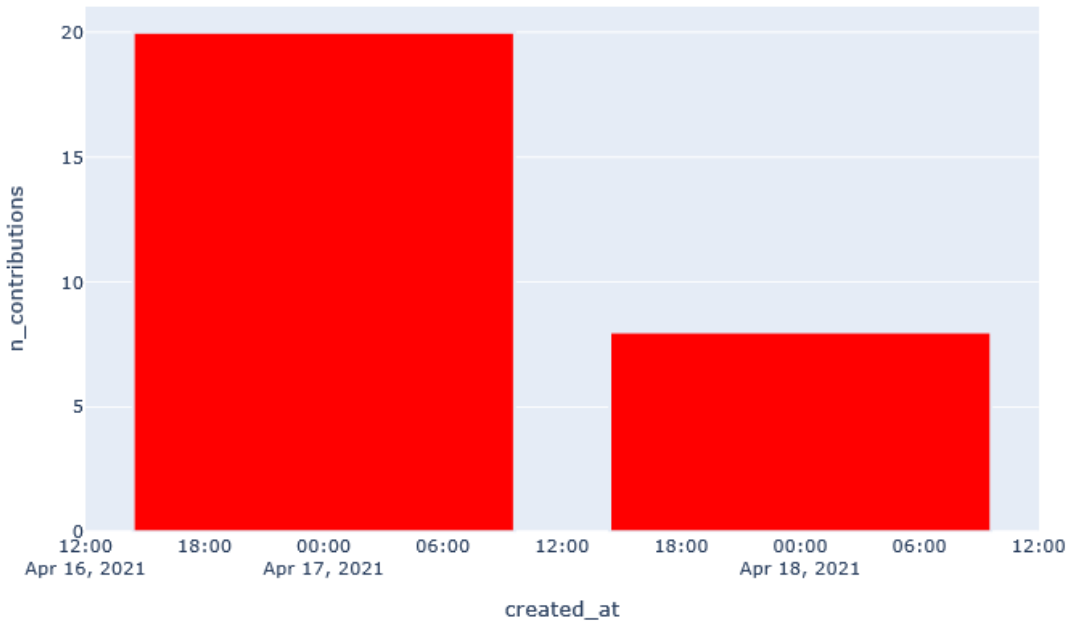
We can see peak days on the top of contributions.

Top user who contributed with this word more investigation

Jreal22:

- used the word f*ck 10 times
- Negative Comments
- Has 28 contributions made only in two days

The number of "Jreal22" contributions in 2021

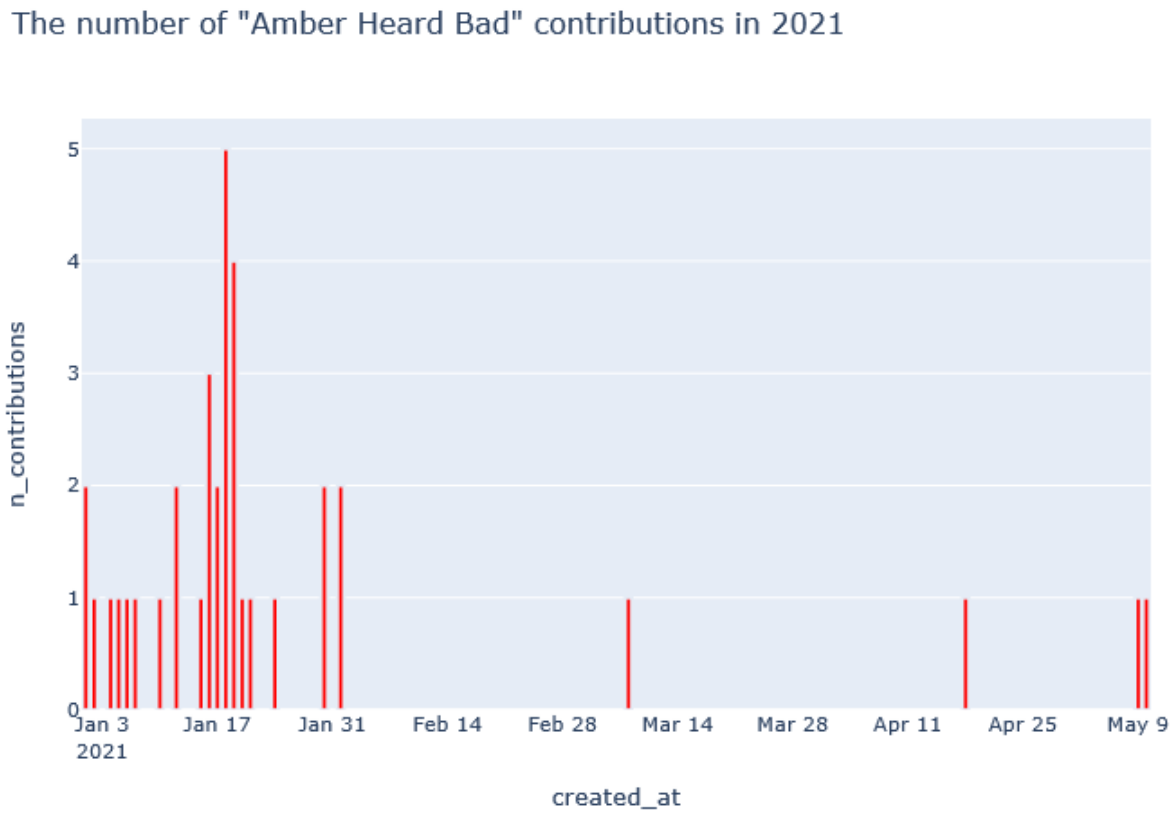


can somebody rp as amber heard for me long term

- From two bots 8 times.
- In those subreddits:
  - r/celebJObuds 5
  - r/CelebRoleplayJOBuds 2
  - r/CelebRoleplay 1
- Those authors:
  - RoleplayTime21 3
  - RoleplayGuy21 3
  - -banned- 2

amber heard bad

- Repeated 37 times.
- Most of those users banned:
  - -banned- 14
  - bradje61 3
  - ReShout876 2



F*ck amber heard

- 102 times.
- Most users were banned:
  - -banned- 13
  - FutureCrusaderX 2
  - bigsquibb 1

Good bot

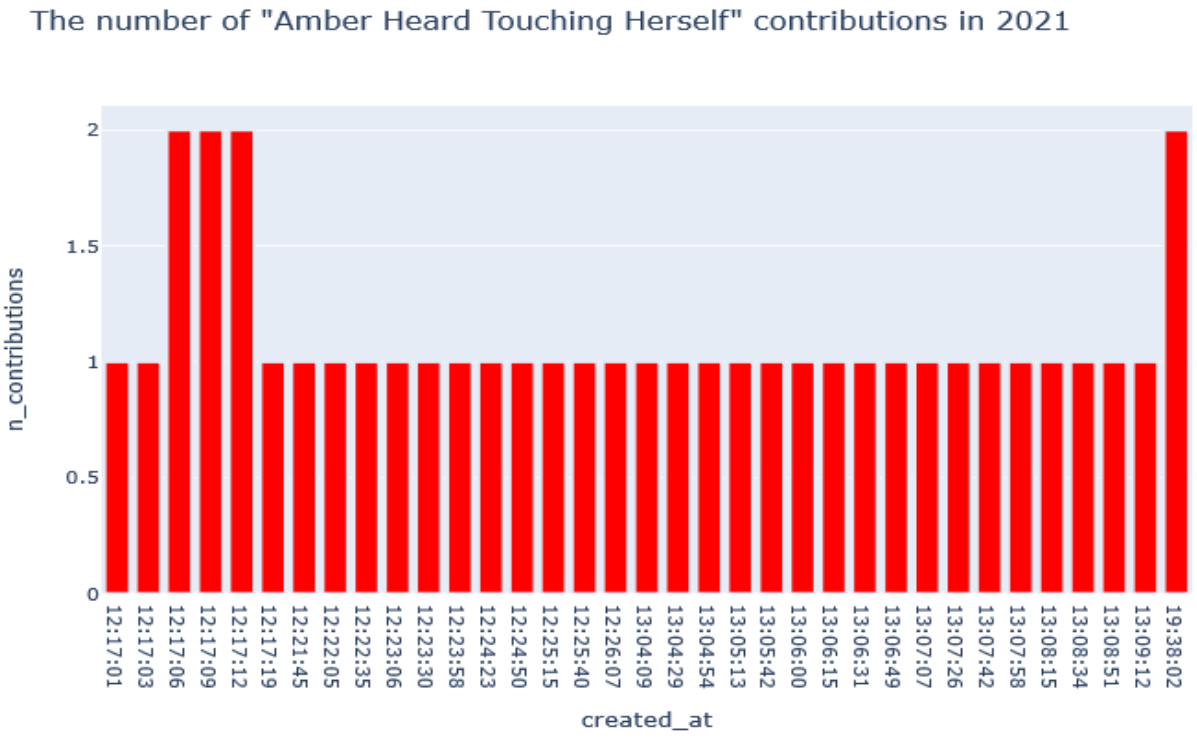
- 12 times.
- We can further investigate the submissions in which we find Good bot comments.
  - https://www.reddit.com/r/awfuleverything/comments/n2h9kp/amber_heard_hired_for_33000_per_talk_in_domestic/gwkgkb7/
  - https://www.reddit.com/r/TrueOffMyChest/comments/lx2s7w/its_disgusting_that_people_are_less_angry_about/gpn804a/

Amber Heard Touching Herself

- 40 times.

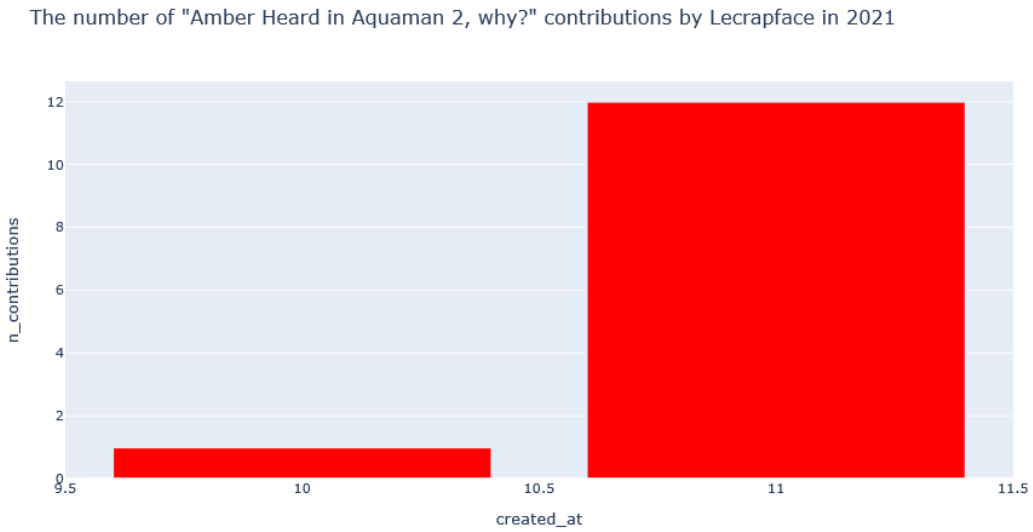
  Note: the user "owenlinx" & "garretdanielkelly" behaviour is suspecious, they are posting in different subreddits in the same second!!

- Top authors *(both users don't have a verified mail address)*
  - owenlinx 20
  - 90police 17
  - garretdanielkelly 2

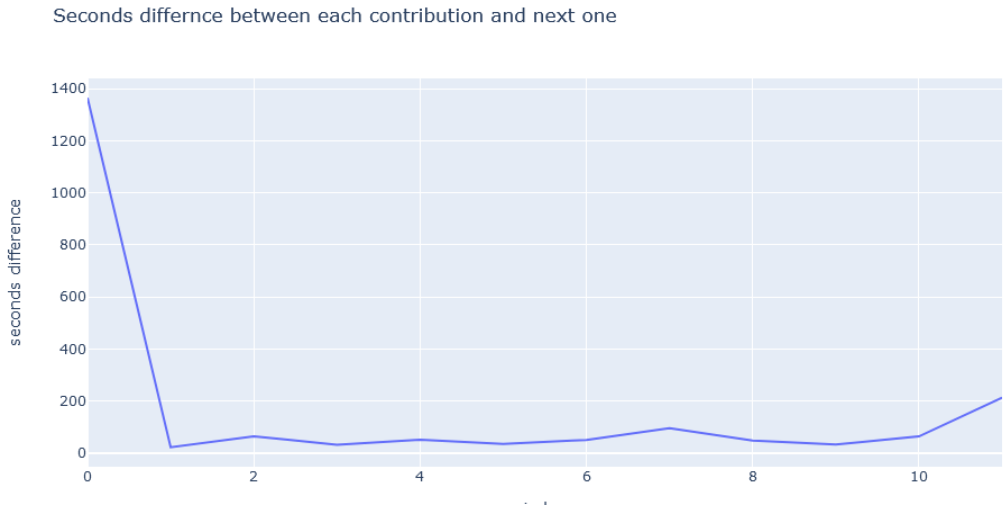


Amber Heard in Aquaman 2, why?

- 13 times from one user **Lecrapface**
- All these texts are -ve in sentiment_blob & neutral in sentiment_nltk.
- He used this in many subreddits:
  - r/uwaterloo 1
  - r/P*ssyPass 1
  - r/DeFranco 1
  - r/p*ssypassdenied 1
  - r/MensRights 1
  - r/entertainment 1
  - r/CosmicBookNews 1
  - r/DC_Movies 1
  - r/PeopleBeingJerks 1
  - r/JusticeForJohnnyDepp 1



- Seconds differences [1365, 23, 65, 33, 52, 36, 51, 96, 49, 34, 65, 214].



- Minutes differences: [22.75, 0.38, 1.08, 0.55, 0.87, 0.6, 0.85, 1.6, 0.82, 0.57, 1.08, 3.57]

Suspected Dictionary: {'**Jreal22**': 'Created at:**2019**-06-23, used the word f*ck in 28 negative comments in APR 17,18 2021', '**Lecrapface**': "Created at: **2020**-10-25 posted 'Amber Heard in Aquaman 2, why?' on 13 different subreddits in Jan 30, 2021"}

Further check Lecrapface contributions on 2021

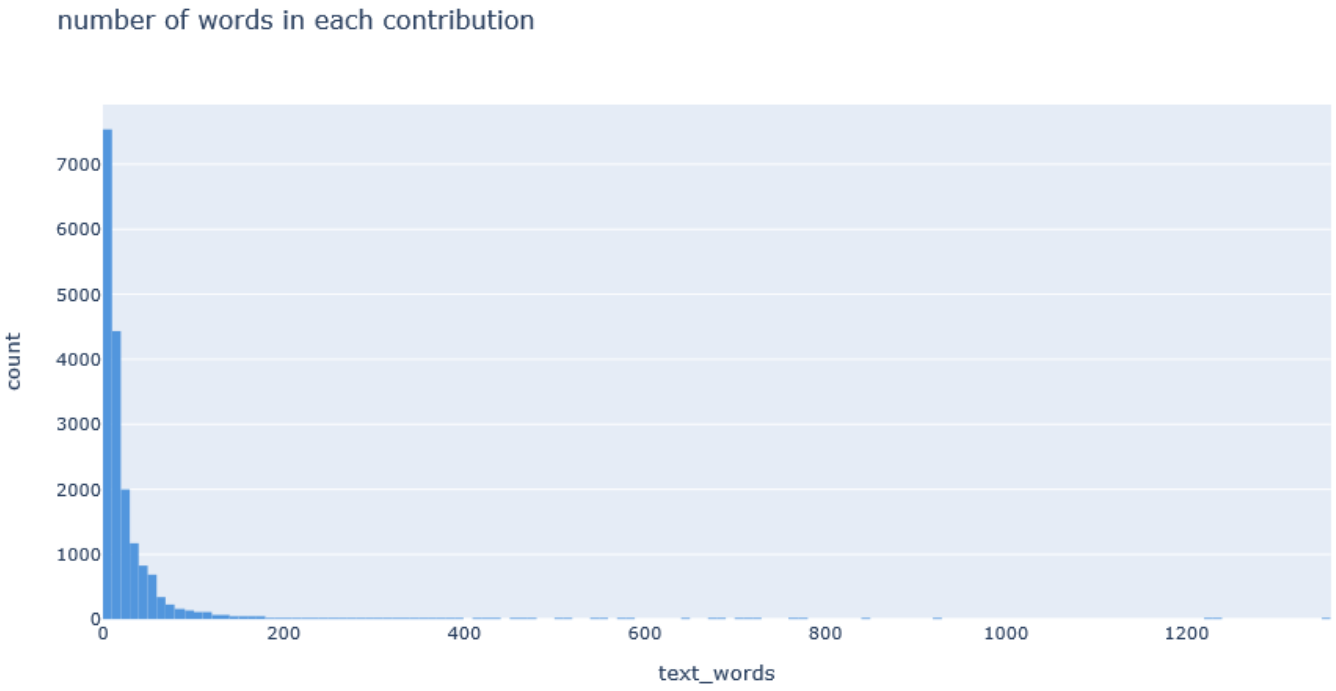
Lecrapface, this user has no other contributions in 2021 except for these 13 comments against AH in Aquaman!!

Check the number of text words

- [deleted] **339**
- Amber Heard **268**
- ### [Browse JerkOffChallenges](https://jerkofftocelebs.com/actors/) • [Browse Picture Galleries](https://jerkofftocelebs.com/pictures/) • NEW [JerkOffToGermanCelebs](https://reddit.com/r/JerkOffToGermanCelebs/)\n\n\n^(*Thank you for your submission. Make sure to follow the rules.*) \n\n^(*Check out our Website*) ^[*here*](https://jerkofftocelebs.com/). \n\n^(*Join our Discord*) ^[*here*](https://discord.gg/FMhrH2j).\n\n^(*Explore more subreddits*) ^[*here*](https://jerkofftocelebs.com/reddit-nsfw-list/).\n\n\n*I am a bot, and this action was performed automatically. Please [contact the moderators of this subreddit](/message/compose/?to=/r/JerkOffToCelebs) if you have any questions or concerns.* **161**
- [removed] **122**
- Rule 9 overused. No Johny Depp or Amber Heard memes at this time\n\n*I am a bot, and this action was performed automatically. Please [contact the moderators of this subreddit](/message/compose/?to=/r/memes) if you have any questions or concerns.* **52**

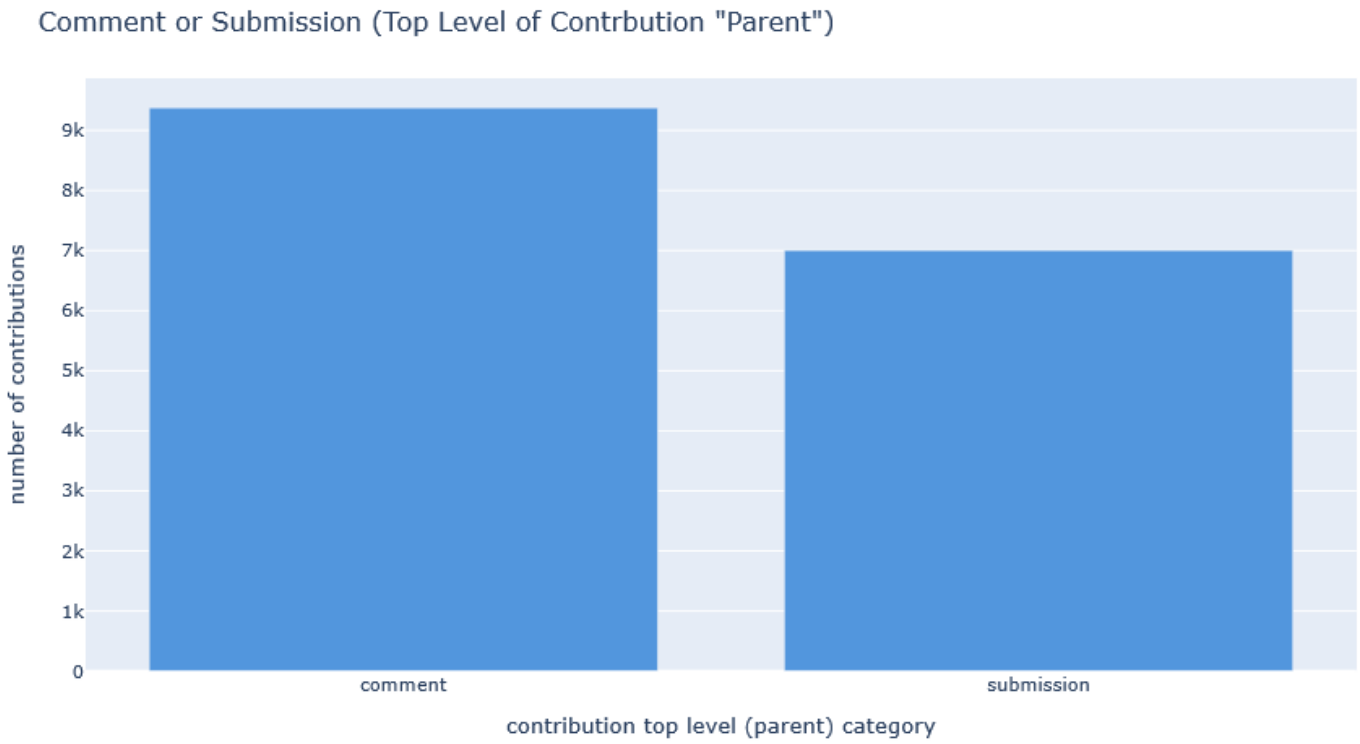
Notes:

- Most contributions were deleted.
- The other contribution has 'Amber Heard' which is logical.
- "Amber Heard Touching Herself" This text repeated 40 Times!!
- "Good bot" repeated 10 Times!!
- "Amber Turd" is repeated 10 Times!!
- "Fuck Amber Heard" repeated 9 Times!!
- "Amber Heard bad" repeated 8 Times!!
- "Can Somebody RP as Amber Heard for me long term?" repeated 8 Times!! (RP --> Role Play)
- "Well I'm going to start doing preliminary emails to voice my displeasure that a DV perp is even coming back to make more millions.\n\nAnd I won't be watching that shit or buying it either\n\nEdit: ok so this is who I emailed\n\njessica.zacholl@warnerbros.com\n\nShe's in WB's Media and Press Dept.\n\nAnd this is what I said \n\nSubject: Amber Heard in Aquaman 2, why?\n\nJust curious why a studio such as WB would employ a domestic violence perpetrator for their big release? I've been told Hollywood is progressive, but apparently you can abuse your spouse and that's ok? Well I will not be seeing this movie. I get so tired of the talking about how domestic violence is bad, but it seems all of the movie industry just sits silent. #MeToo indeed." ..



The number of parent comments on submissions

Reddit Comments



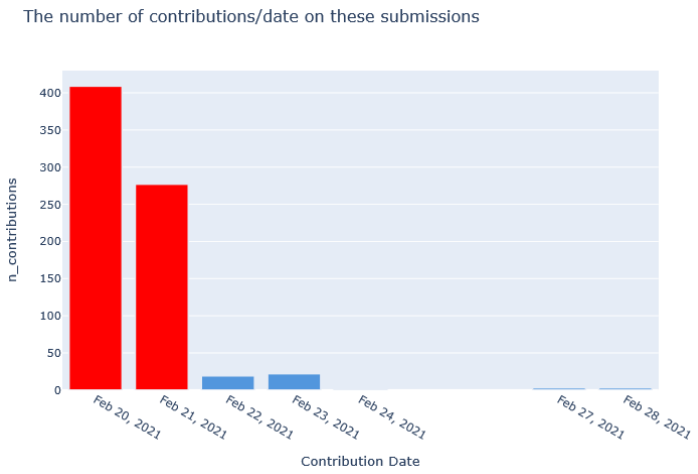
This means that we have about 7K parent comments on submissions (not replies).

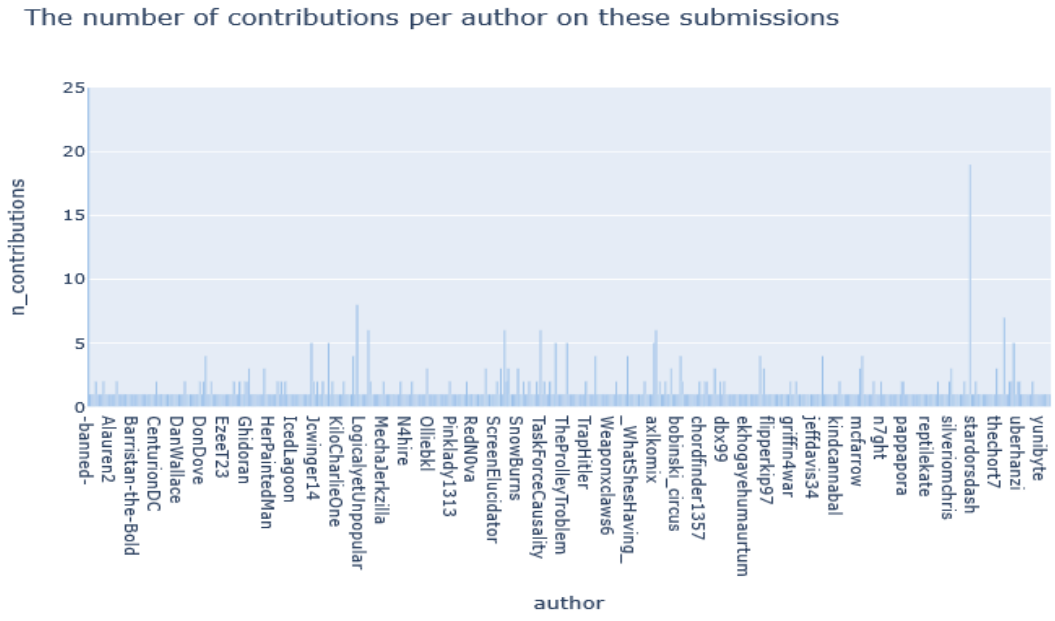
Emilia_clarke_to_replace_amber_heard_as_mera_in

- 6 Different Submissions (the authors of those submissions have unverified mails).
  - Submissions links:
    - tps://www.reddit.com/r/entertainment/comments/lo748g/emilia_clarke_to_replace_amber_heard_as_mera_in/
    - https://www.reddit.com/r/MensRights/comments/lp6ttu/emilia_clarke_to_replace_amber_heard_as_mera_in/ht
  - Authors of those submissions

	user_name	has_verified_email	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year
4654	UltraMagnus0001	True	False	False	False	51696.0	18214.0	2012-01-25 22:06:22	others	others
47731	Watcher2020	True	False	False	False	123.0	56960.0	2019-04-28 20:55:03	others	2019
60311	UnHope20	False	True	False	False	4497.0	8588.0	2020-06-01 20:46:13	unverified	2020

- Those submissions have 739 comments.



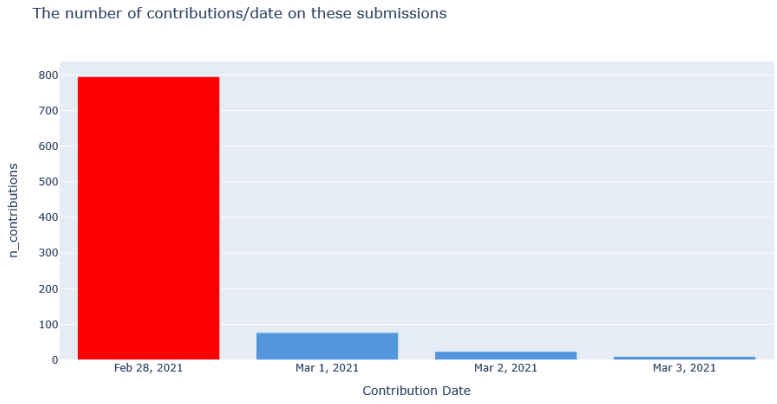


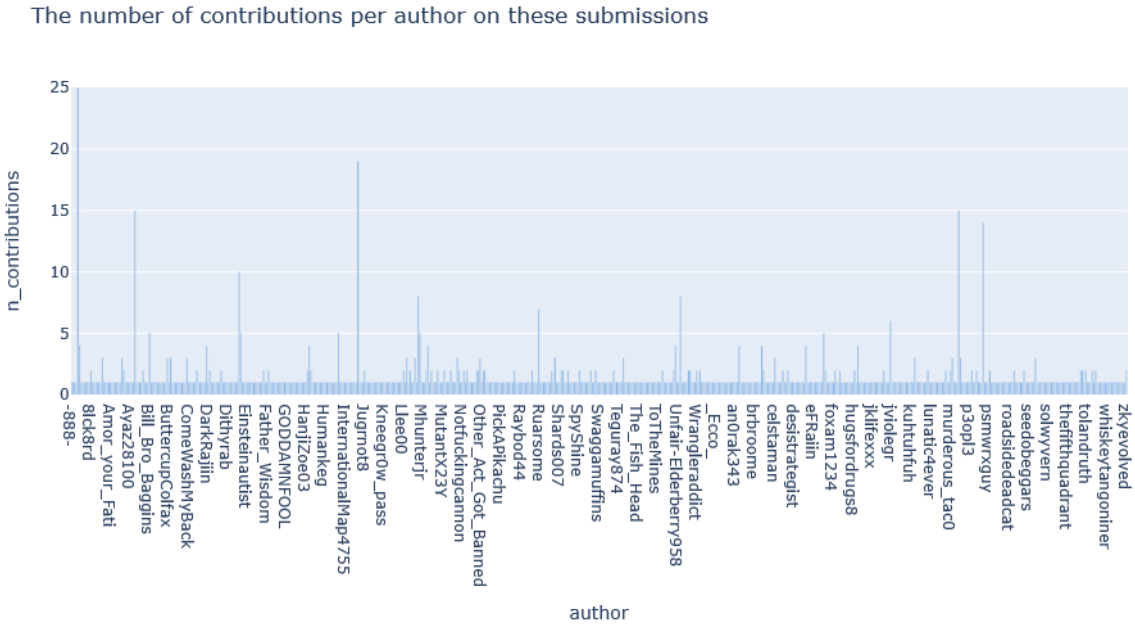
amber_heard_has_been_fired_from_jason_momoas

- 4 Different Submissions
  - We have only [one]not deleted submission:
  - The 3 other posts were deleted.
  - Authors of those submissions.

	user_name	has_verified_email	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year
25395	MahatmaGandamnit	True	False	False	False	7219.0	10995.0	2016-10-10 00:01:25	others	others
34393	PeonSupreme	True	True	False	False	39131.0	137125.0	2018-01-24 19:00:30	others	2018
49236	ToyaW31	True	False	False	False	1133.0	2899.0	2019-06-14 23:05:24	others	2019
61898	Weezy-NJPW_Fan	True	False	True	False	911523.0	1940933.0	2020-07-31 02:27:31	others	2020

- Those submissions have 933 comments.



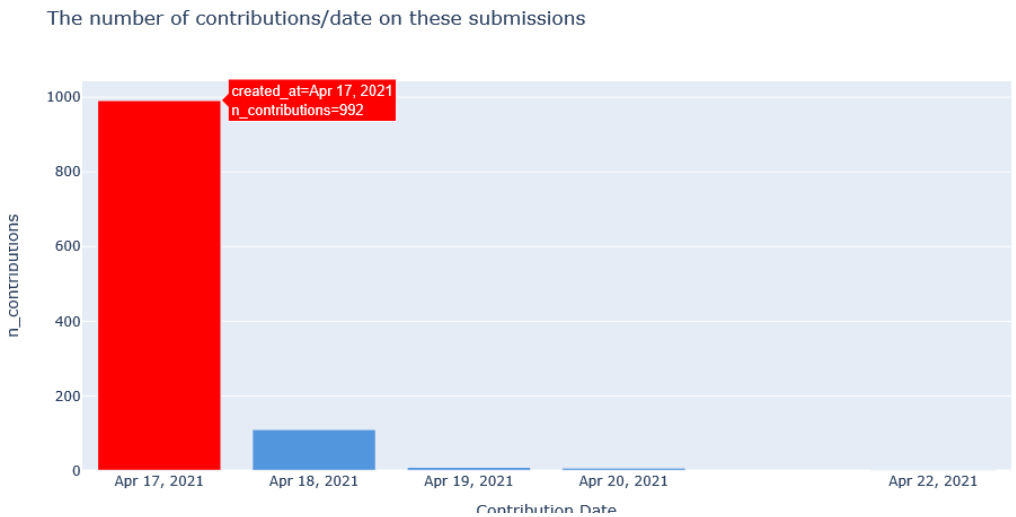


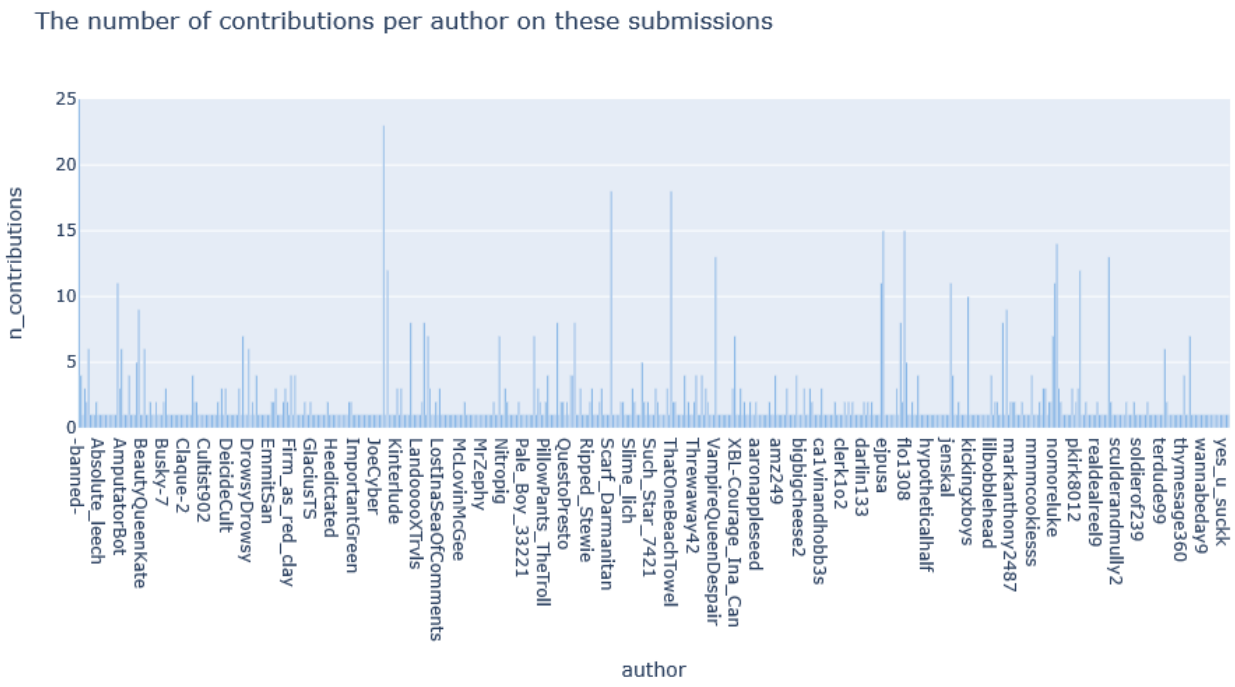
Johnny_depp_releases_lapd_bodycam_footage_proving

- Submission links
  - https://www.reddit.com/r/entertainment/comments/msgoz8/johnny_depp_releases_lapd_bodycam_footage_proving/
  - https://www.reddit.com/r/autotldr/comments/msgtce/johnny_depp_releases_lapd_bodycam_footage_proving/
- Three different submissions from users

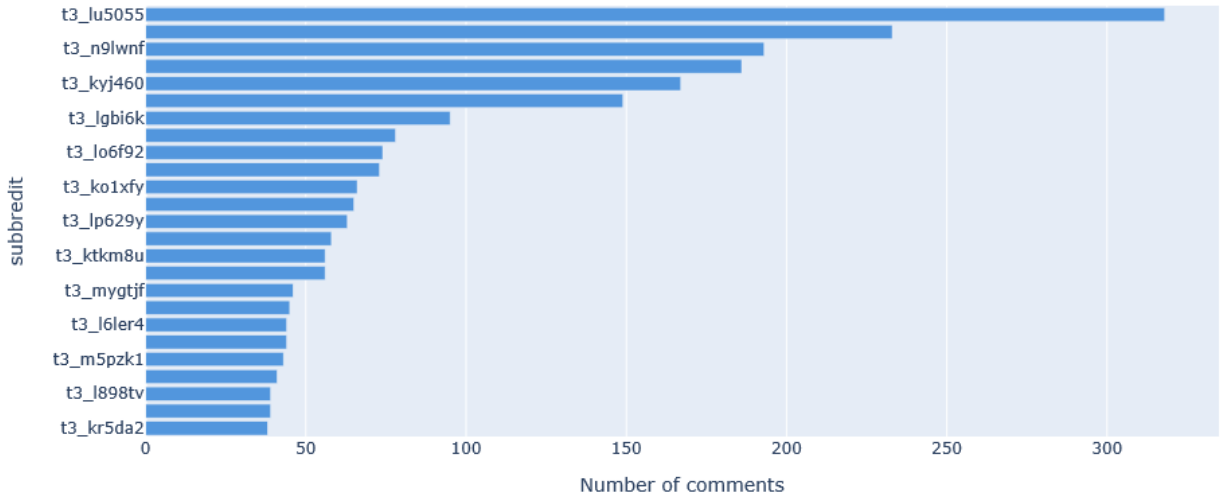
	user_name	has_verified_email	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year
4713	autotldr	True	True	False	False	2752068.0	286509.0	2012-01-30 16:39:40	others	others
25954	Gato1980	True	False	True	False	440406.0	1591399.0	2016-11-12 21:45:46	others	others
70420	Danger3214	True	True	True	True	NaN	NaN	NaT	banned	banned

- Those submissions have 1169 comments.

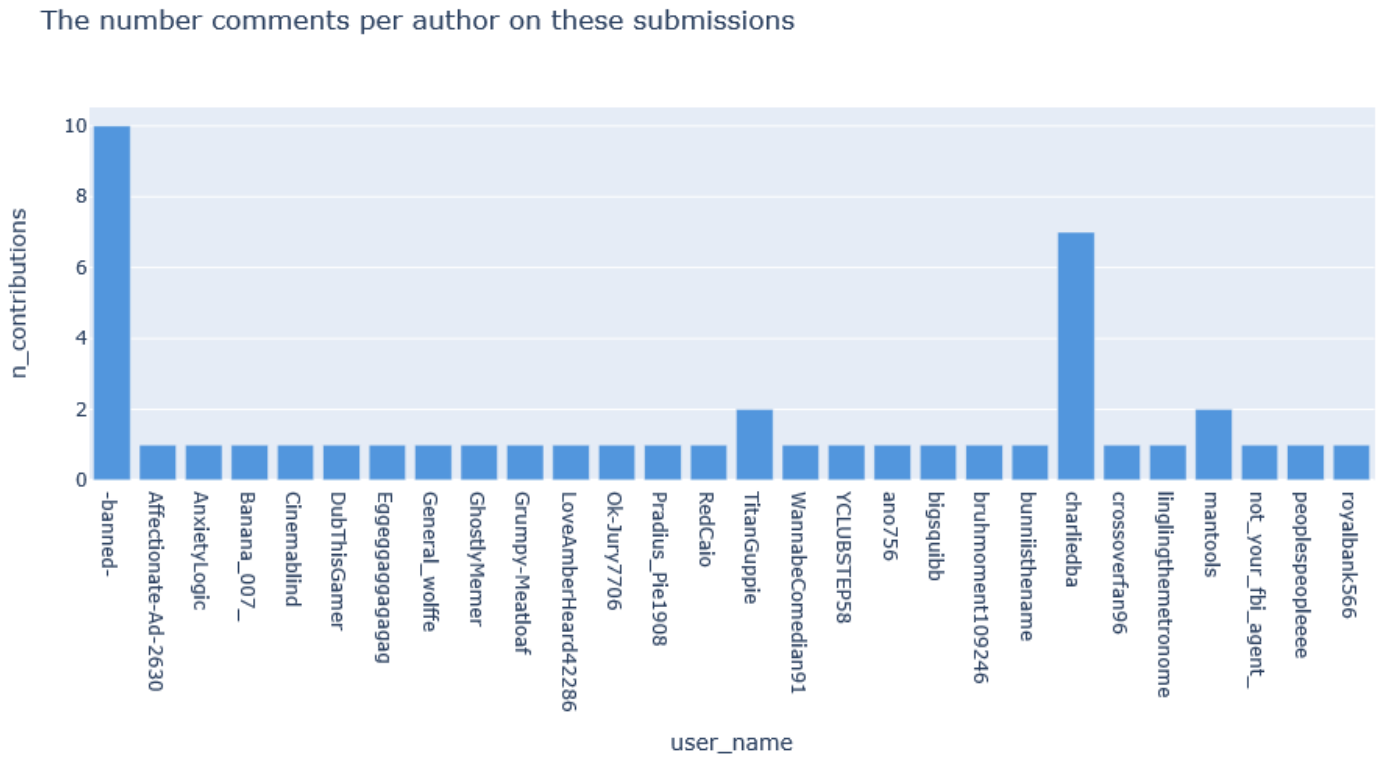


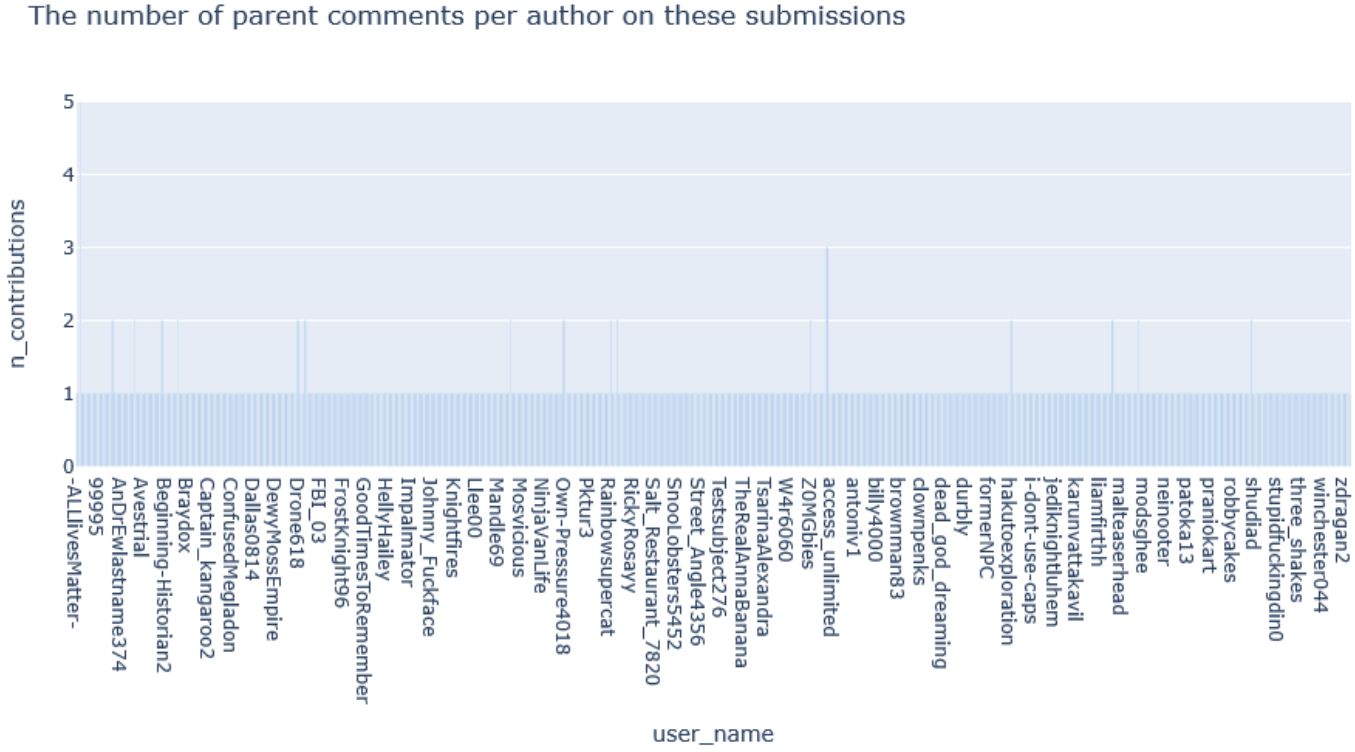


Invesigating the sumbissions with most comments(Top Level Comments)



Check the top 5 submissions in 2021

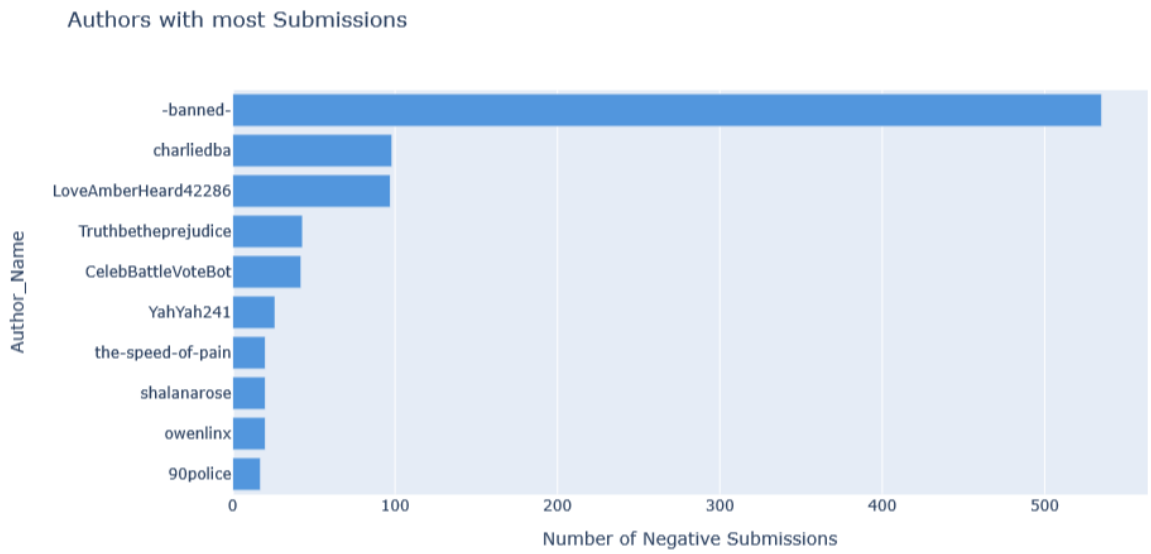




NOTE: There are 50 parent comments from banned accounts

Invesigating authors with the most submissions

- 1925 submissions.

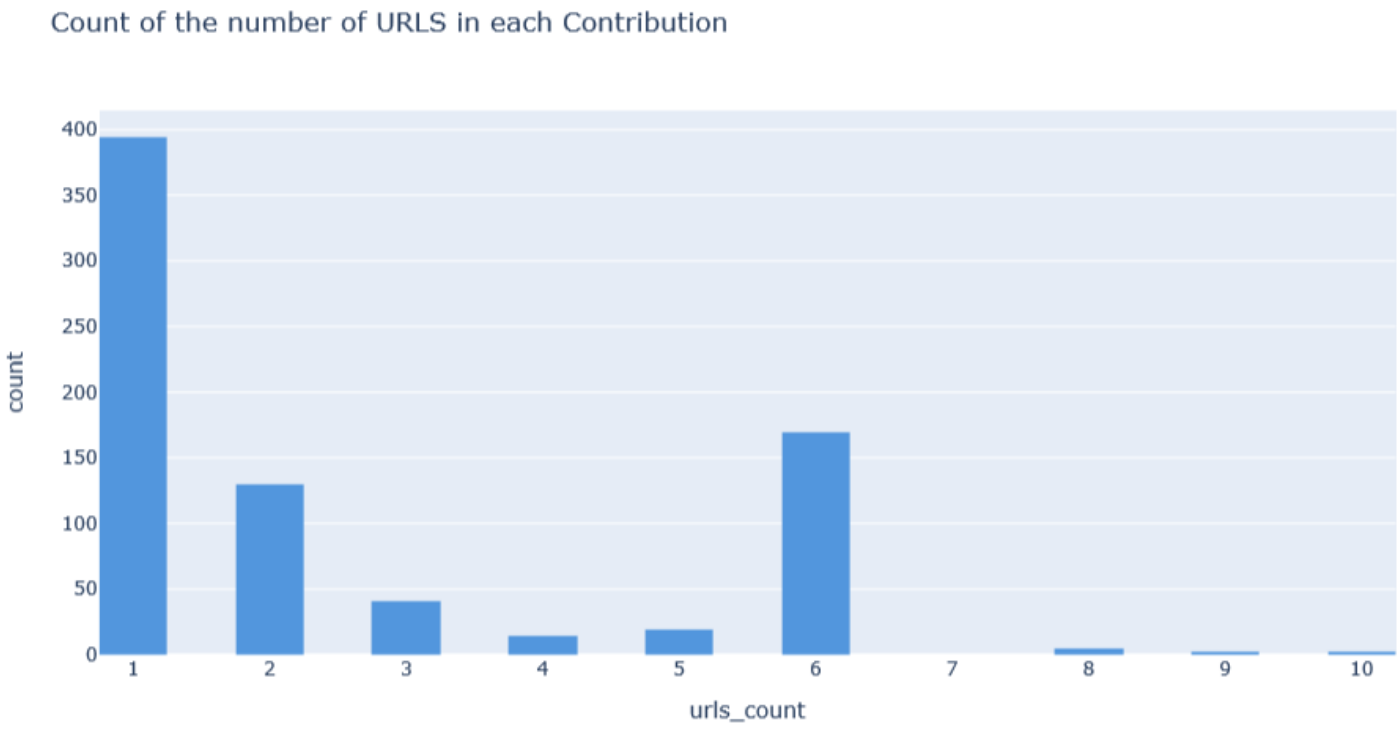


Check whether the users with the most submissions are mod, gold or having a verified email

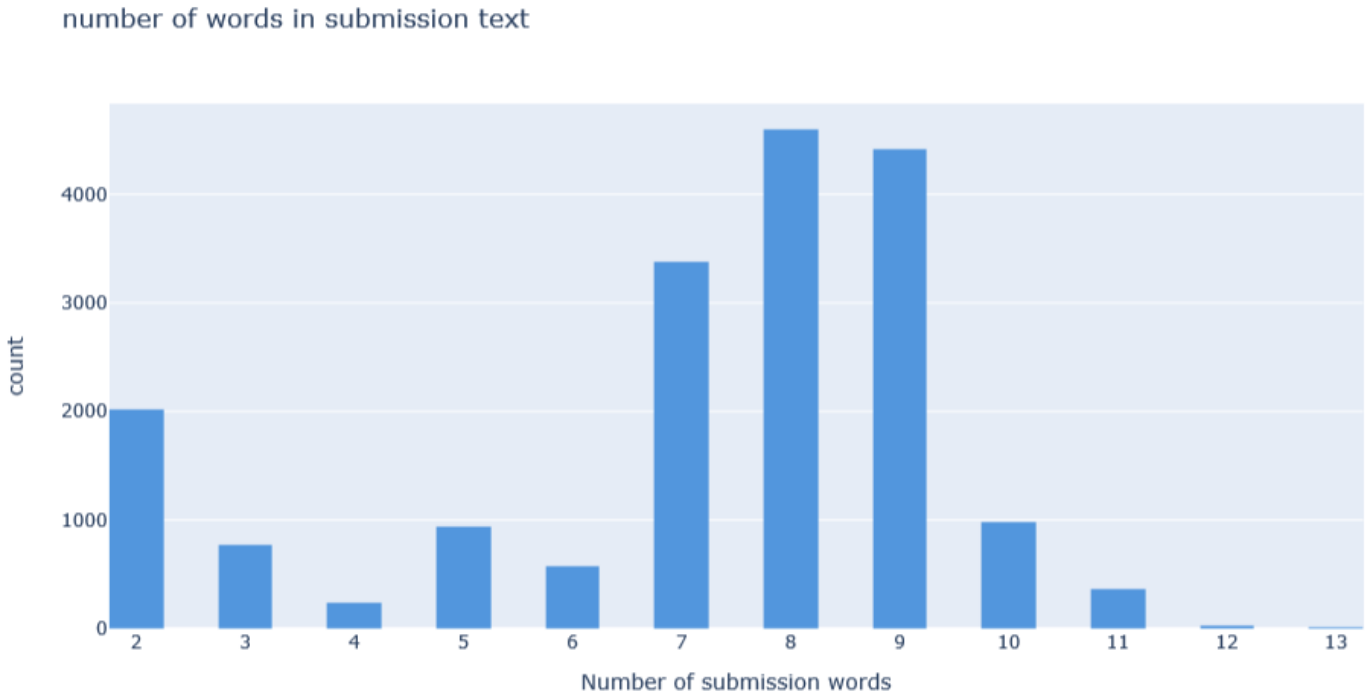
- 24 users
- **Has_verified_email**
  - True 23
  - False 1
- **Is_mod**
  - True 16
  - False 8
- **Is_gold**
  - False 19
  - True 5
- **Is_banned**
  - False 20
  - True 4
- **Banned_unverified**
  - others 19
  - banned 4
  - unverified 1
- **Creation_year**
  - 2020 7
  - 2021 7
  - banned 4
  - 2019 3
  - others 2
  - 2018 1

Submission URLS

- 233 url.



Check the number of submission text words

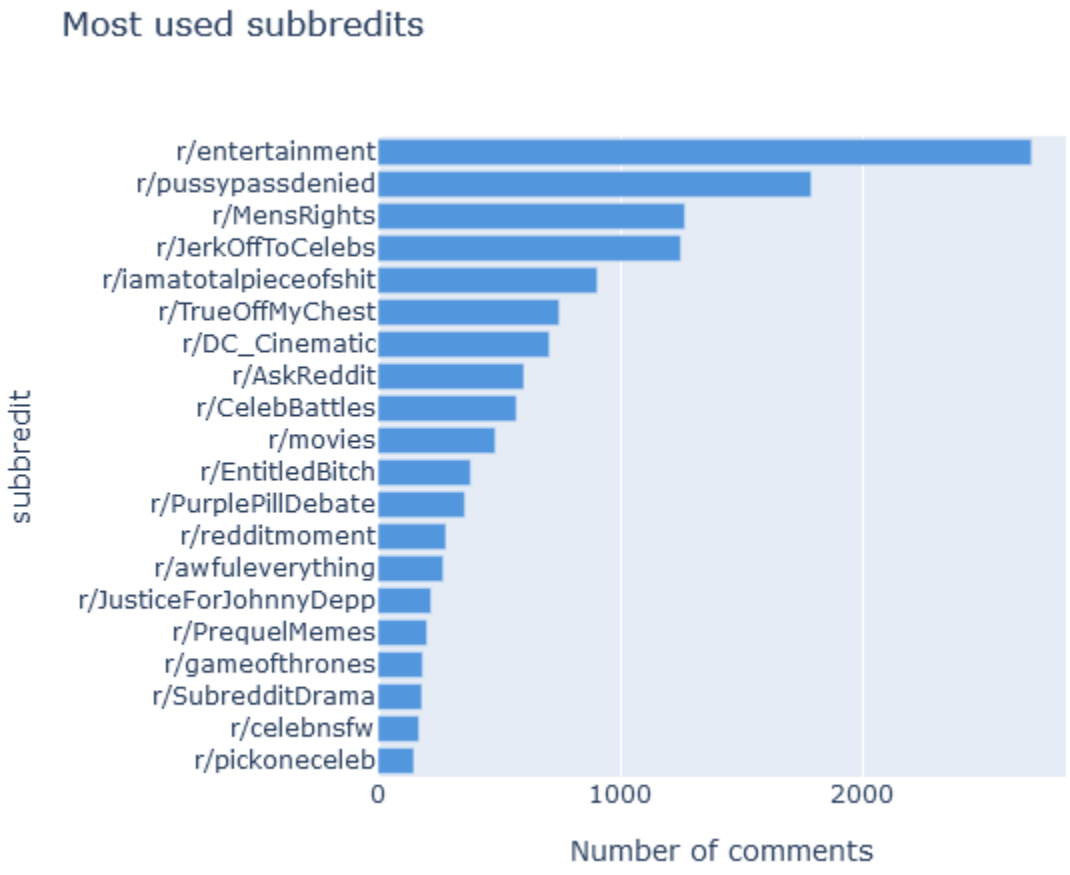


-

Subreddits

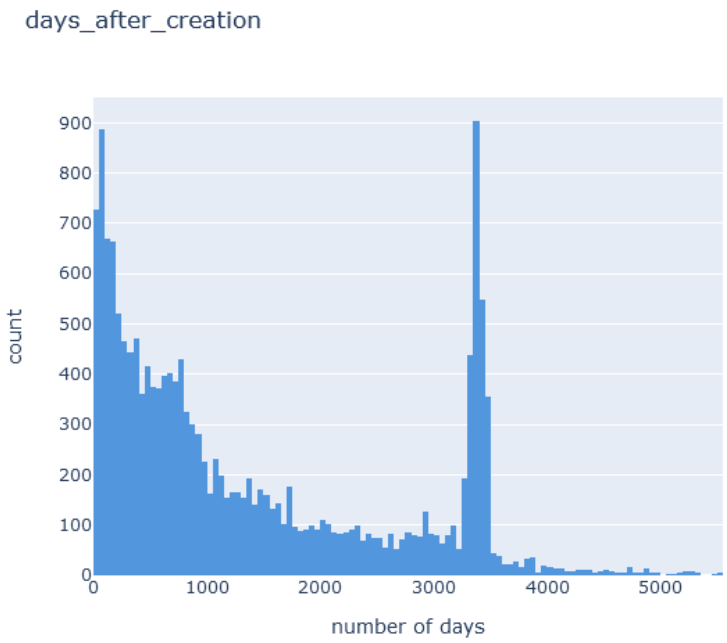
Most used Subreddits

- 545 unique sub reddits.



Merged Users Data with Comments/Submissions Data

Difference in time between creating the account and posting

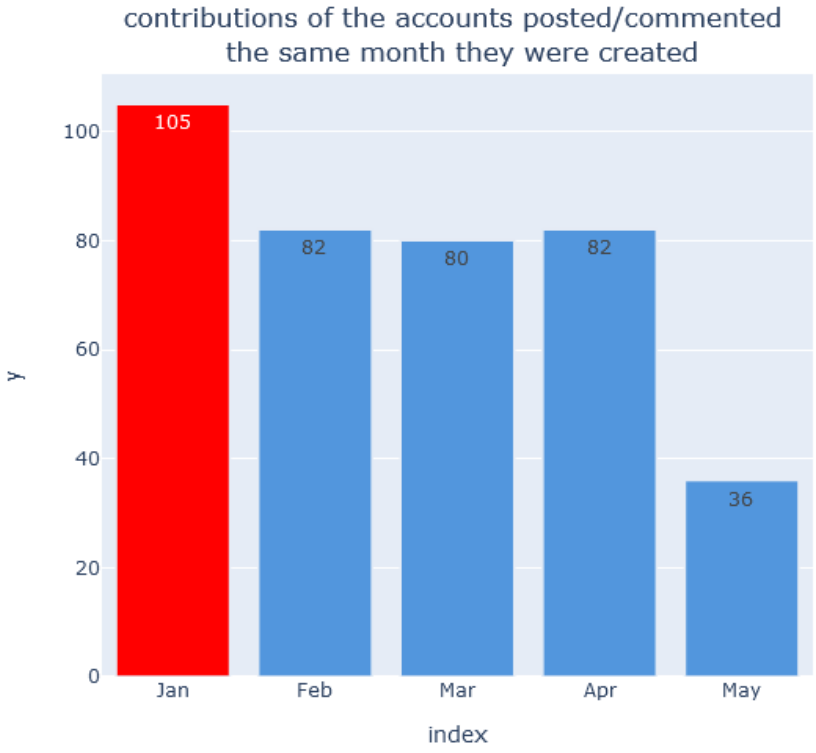


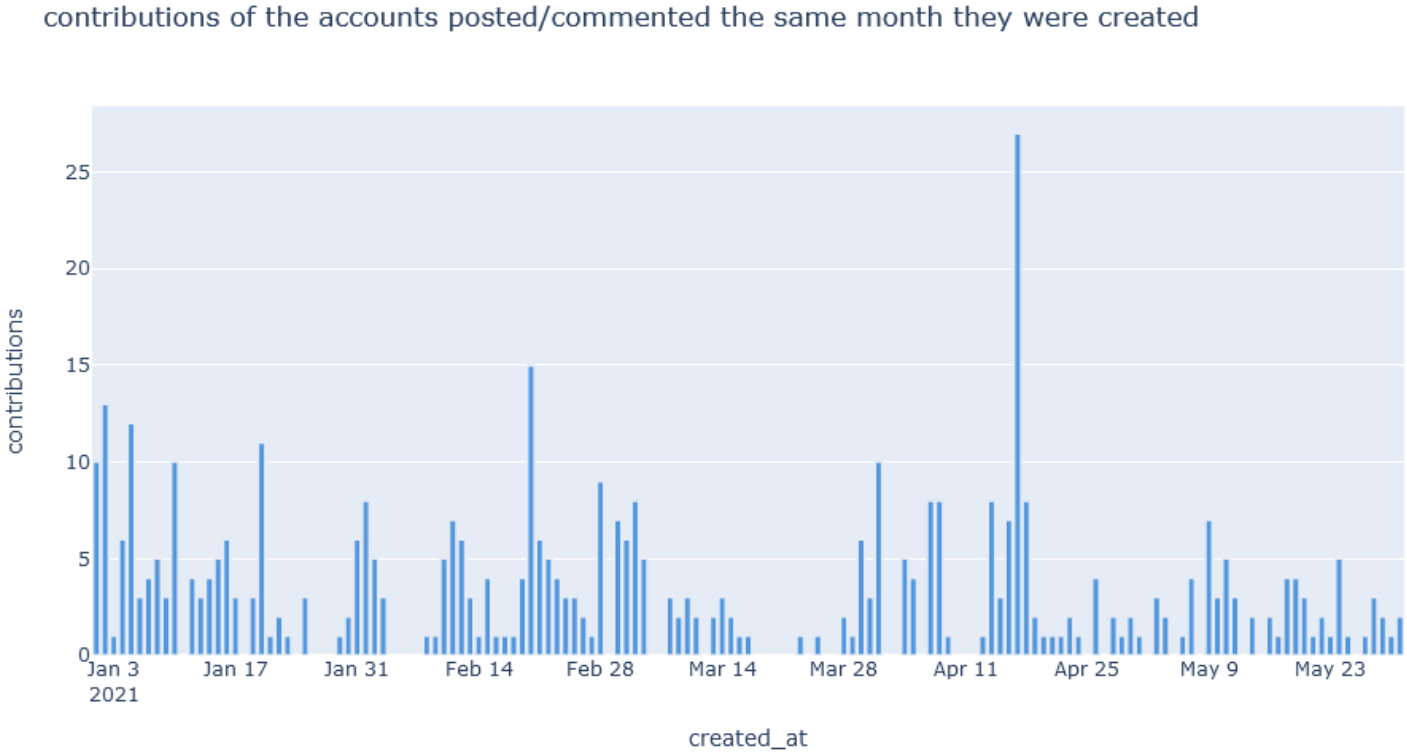
Posting Duration After Account Creation

- The number of **accounts posted** the **same day** they were **created** was 45**.**
- The number of **accounts posted** the **same week** they were **created** was 150**.**
- The number of **accounts posted** the **same month** they were **created** was 451**.**
    - **Creation Year**
        - 2021 385
        - 2020 66
- we can find that **385 accounts** created and posted within the same month in 2021.

More investigations

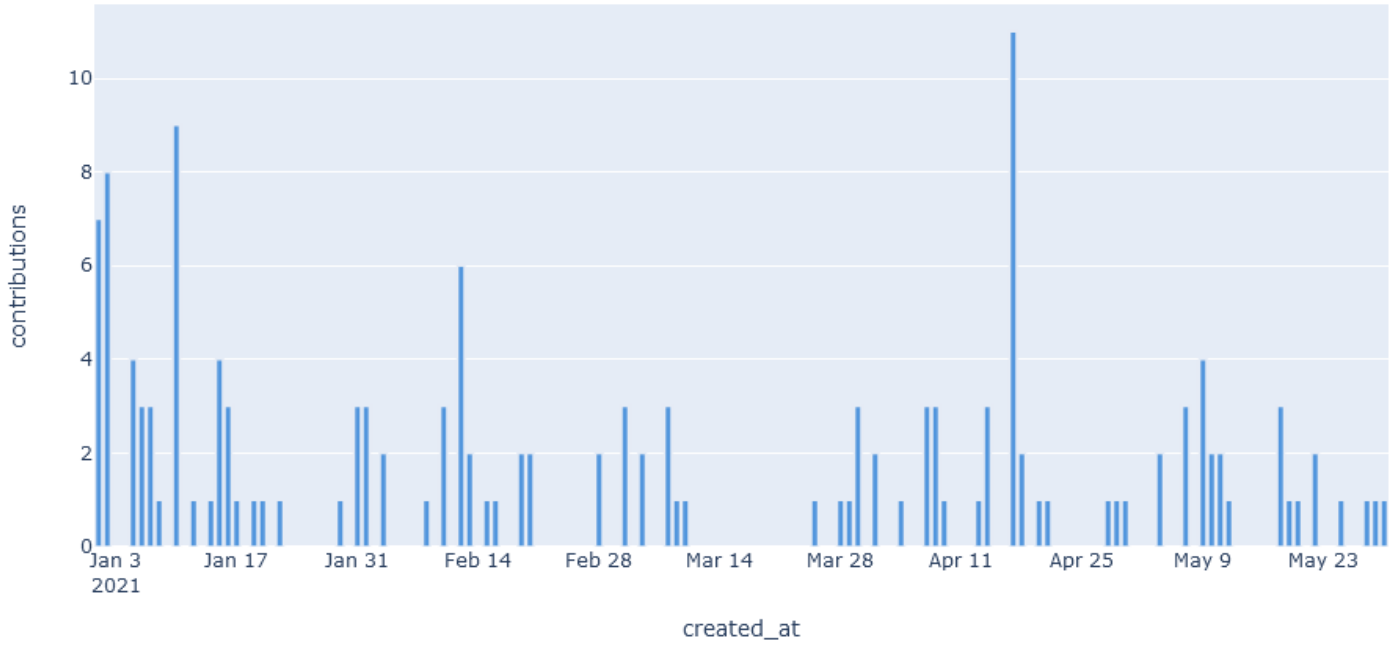
Same Month





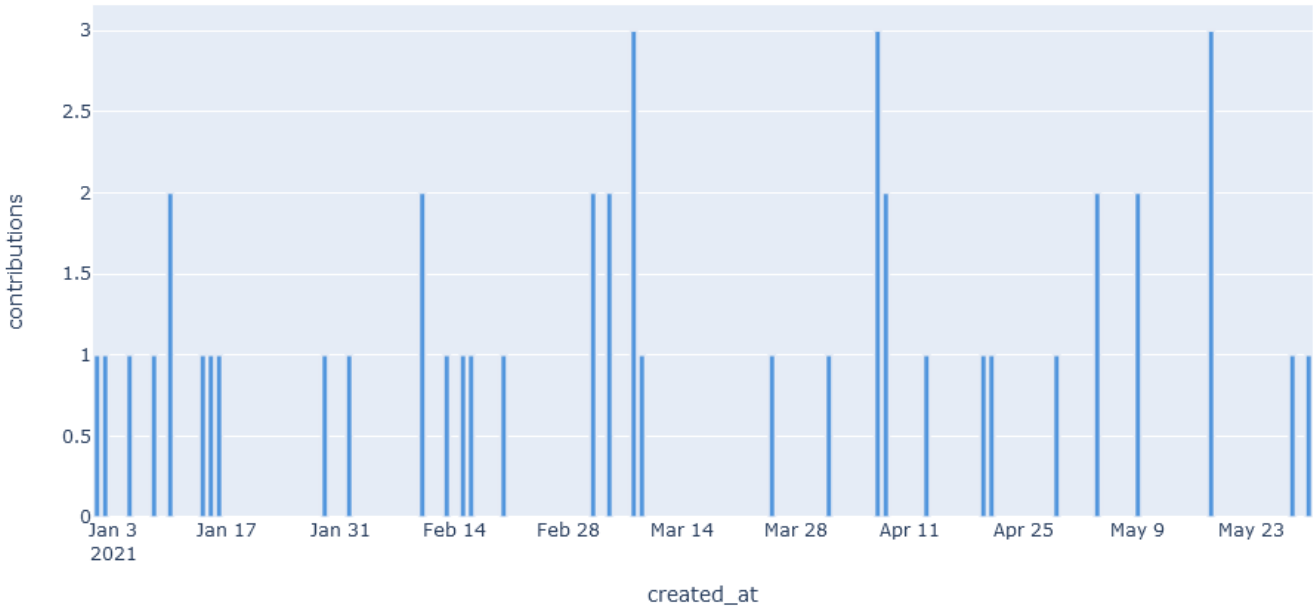
Same week

contributions of the accounts posted/commented the same week they were created



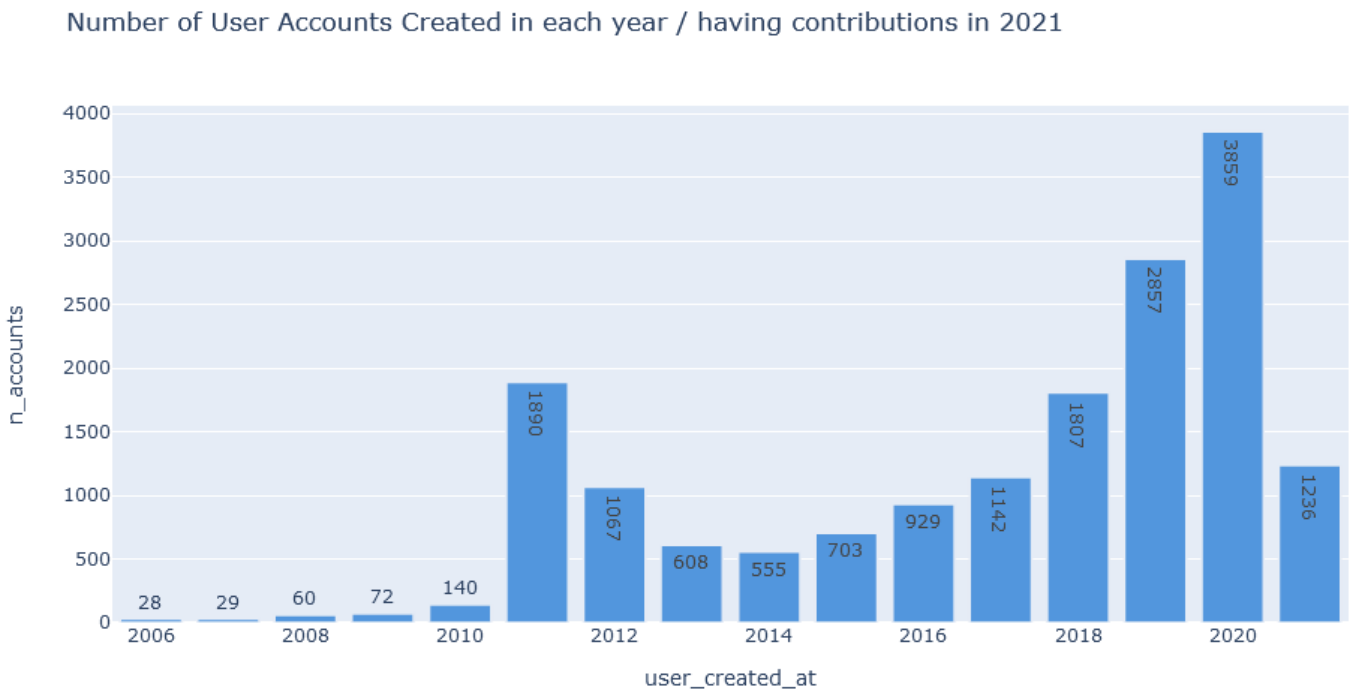
Same day

contributions of the accounts posted/commented the same day they were created



-

Estimation of Number of User Accounts Created in each year / having contributions in 2021

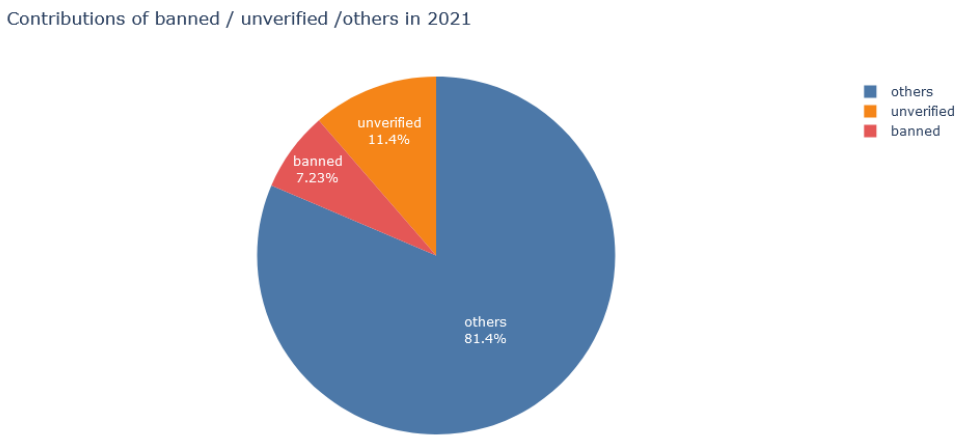


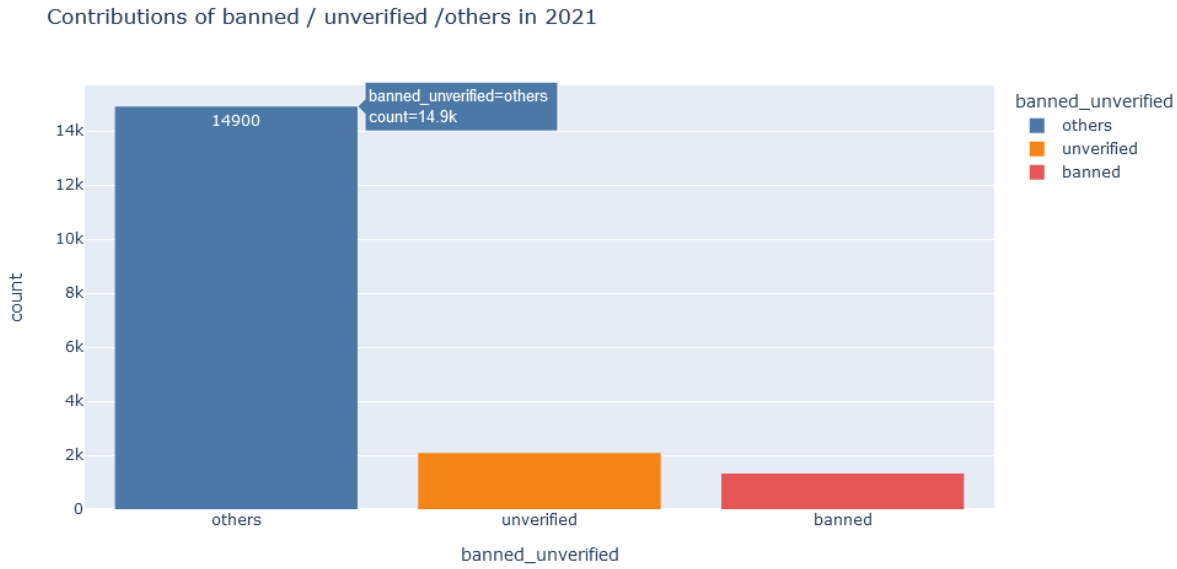
Banned Unverified accounts

- We have 1323 banned users.
- 2082 unverified users.
- 9759 accounts were made in the last 4 years (2018:2021).
    - 1807 in 2018.
    - 2857 in 2019.
    - 3859 in 2020.
    - 1236 in 2021 (Till may).

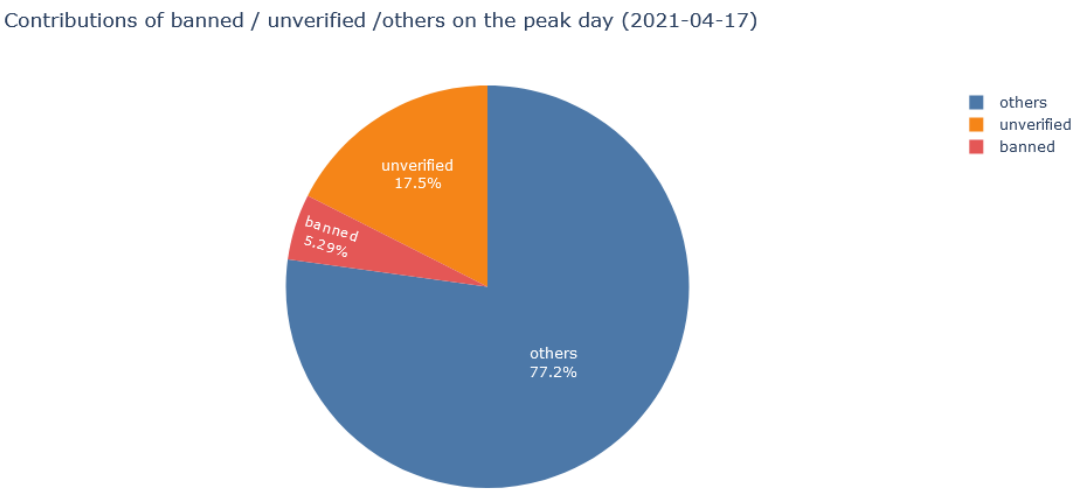
Contributions

	banned_unverified	n_contributions
0	others	14900
1	unverified	2082
2	banned	1323

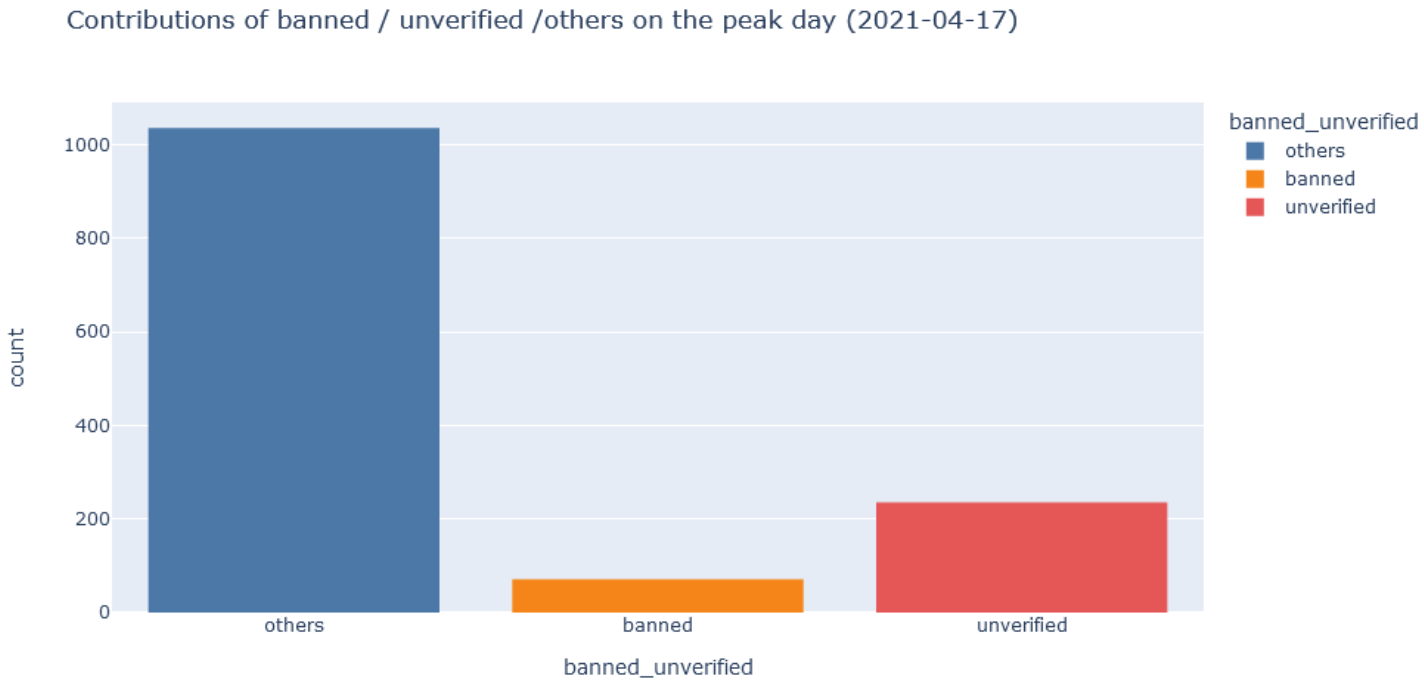

Contributions of banned / unverified /others in 2021
unverified
11.4%
banned
7.23%
others
81.4%
others
unverified
banned


Contributions of banned / unverified /others in 2021
banned_unverified=others
count=14.9k
14900
14k
12k
10k
8k
6k
4k
2k
0
count
others
unverified
banned
banned_unverified
banned_unverified
others
unverified
banned

Peak Day Contributions

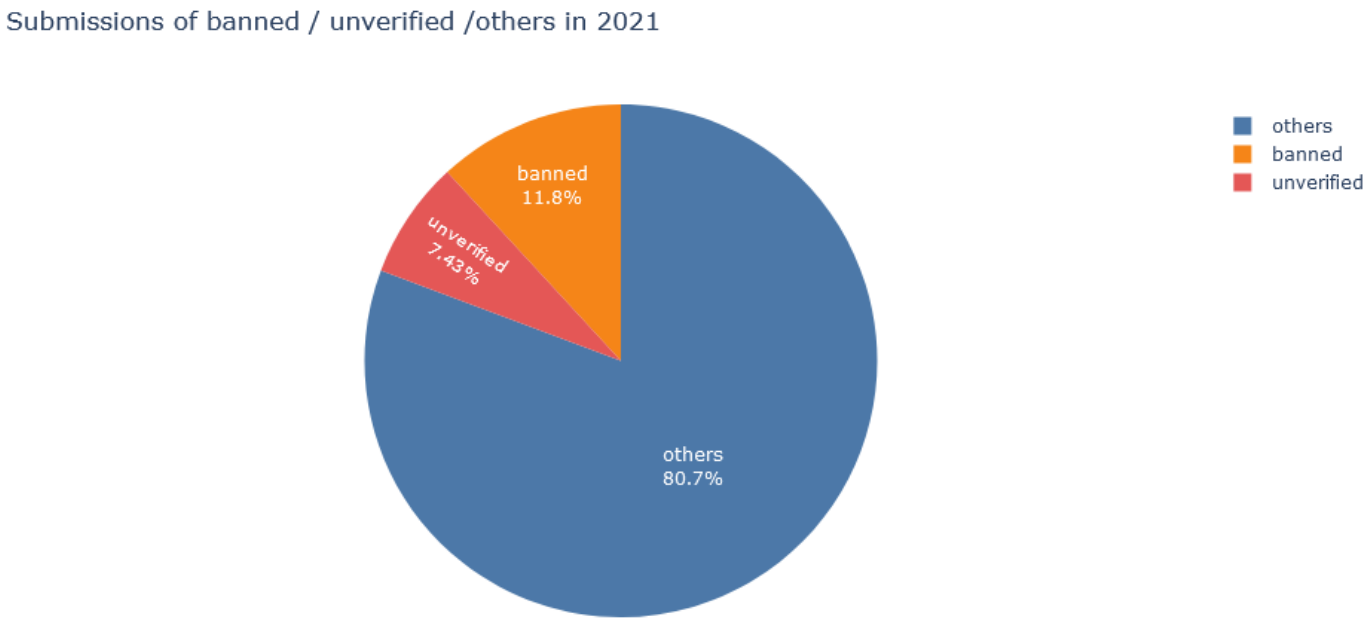


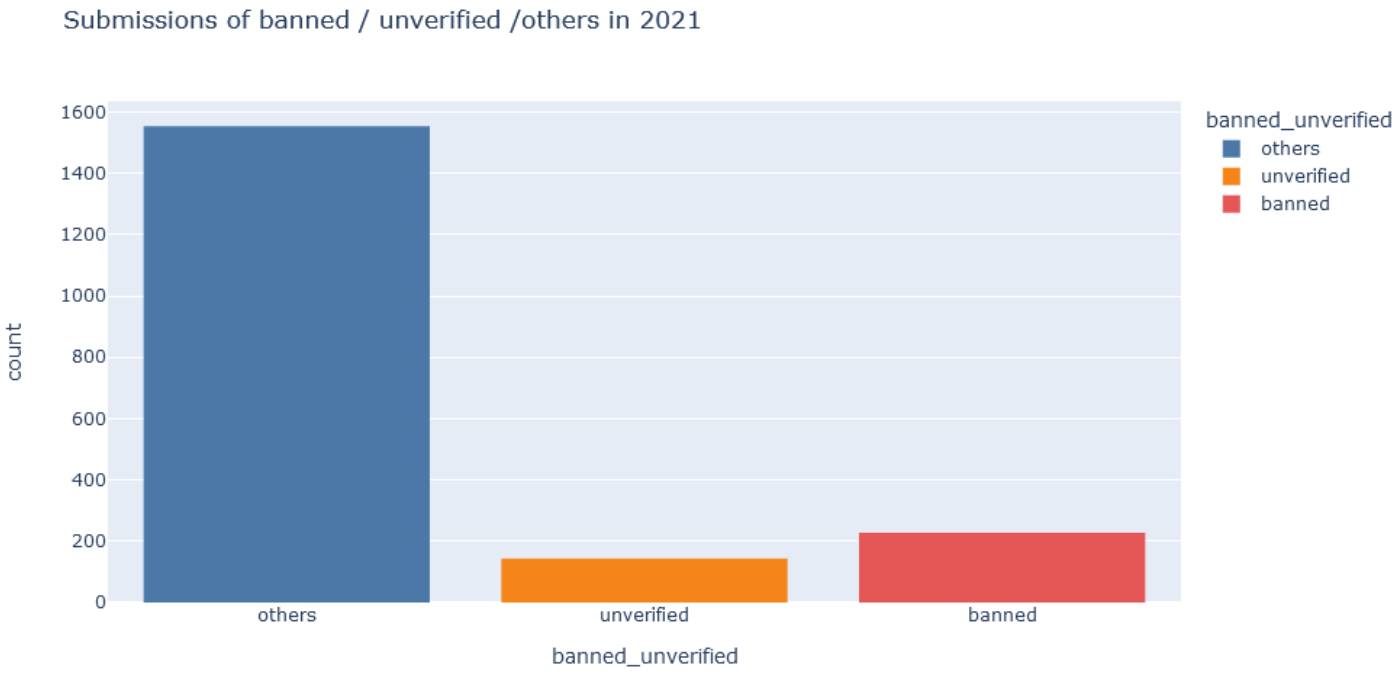
NOTE: 23% of peak day contributions were made by banned accounts and accounts with unverified email address



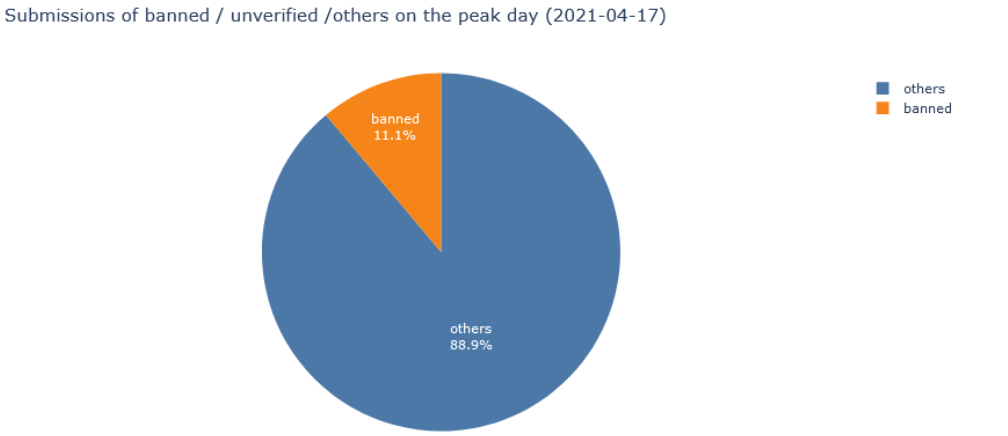
Submissions

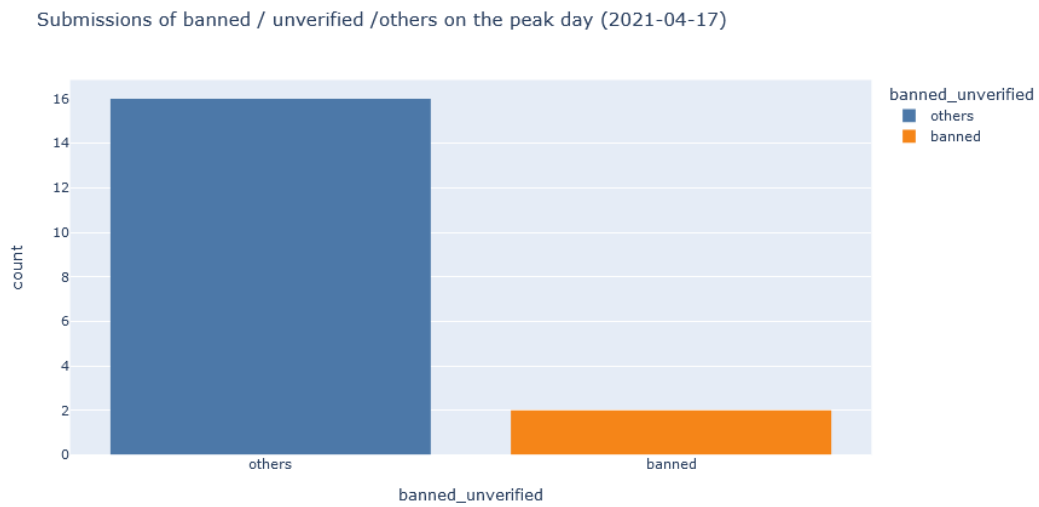
	banned_unverified	n_submissions
0	others	1554
1	banned	228
2	unverified	143





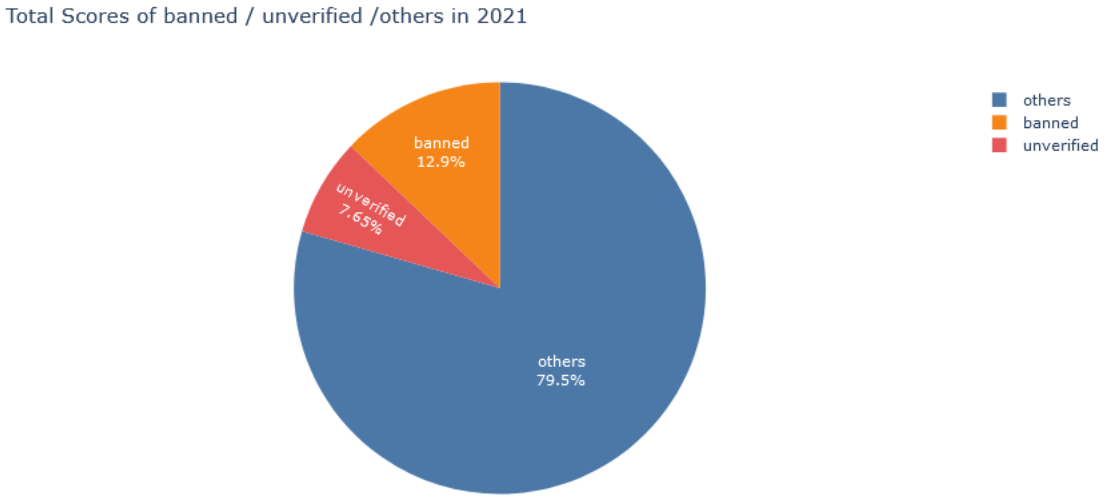
Peak Day Submissions

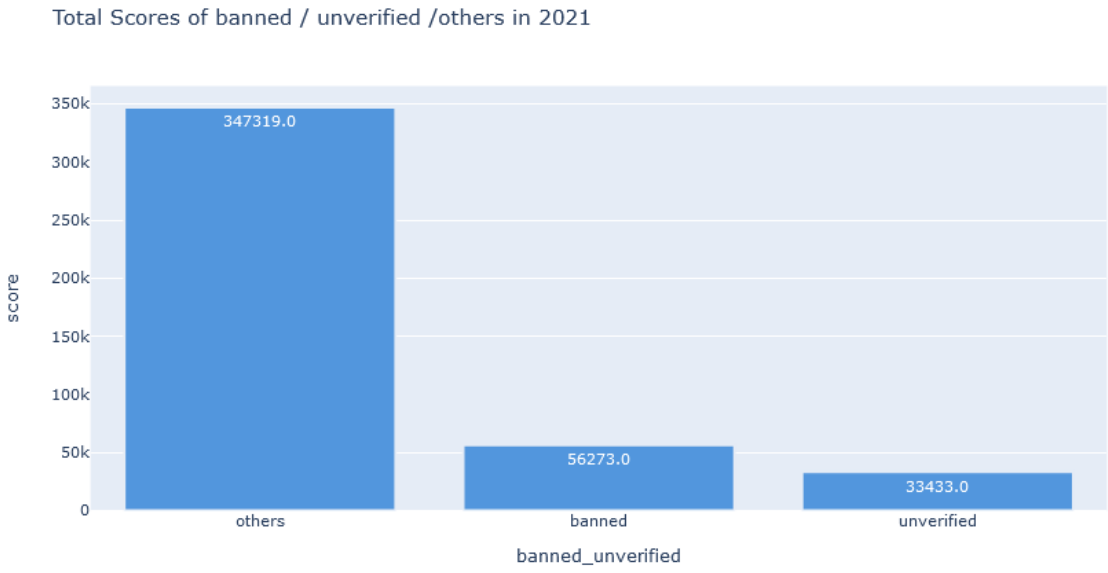




Total Scores

	banned_unverified	score
0	banned	56273.0
1	others	347319.0
2	unverified	33433.0



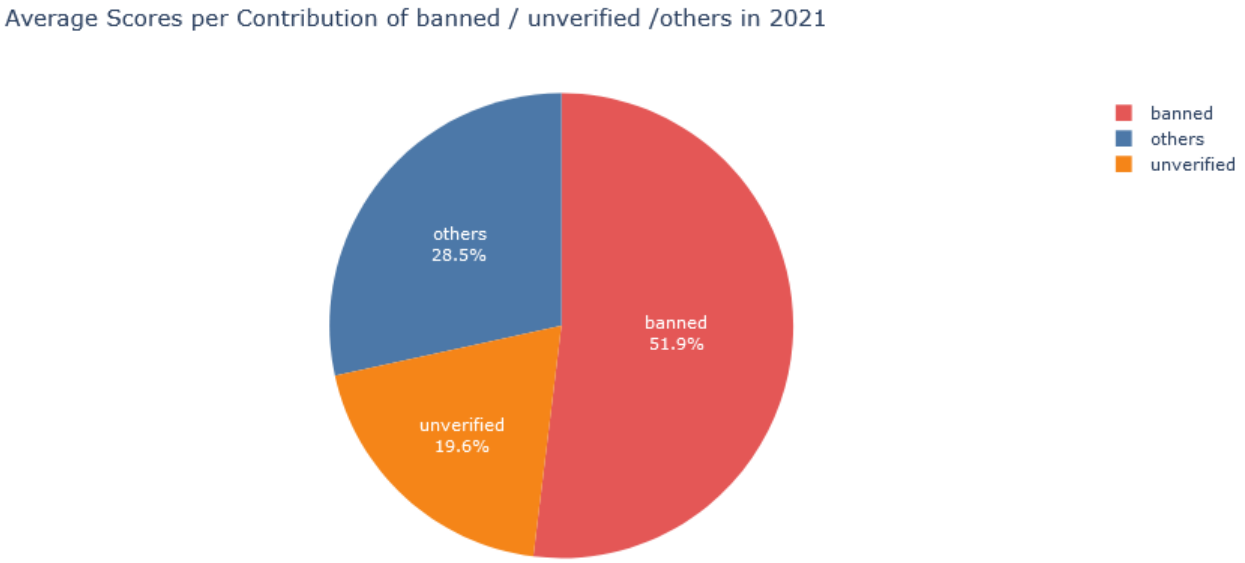


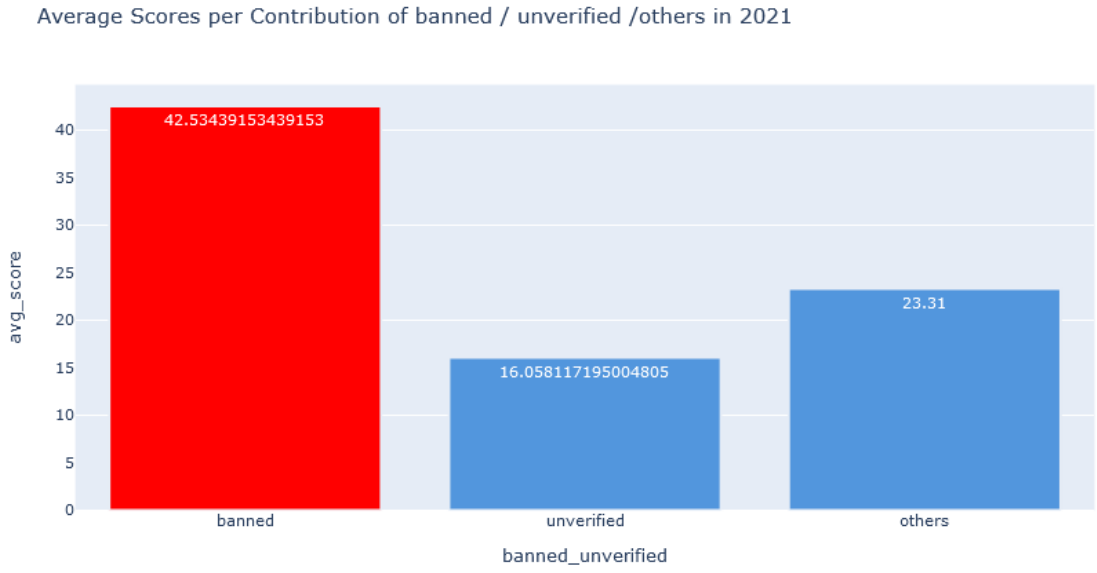
Average Scores per contribution

	banned_unverified	n_contributions
0	others	14900
1	unverified	2082
2	banned	1323

	banned_unverified	score	n_contributions	avg_score
0	banned	56273.0	1323	42.534392
1	others	347319.0	14900	23.310000
2	unverified	33433.0	2082	16.058117

- avg_score = df_scores_relative.score / df_scores_relative.n_contributions



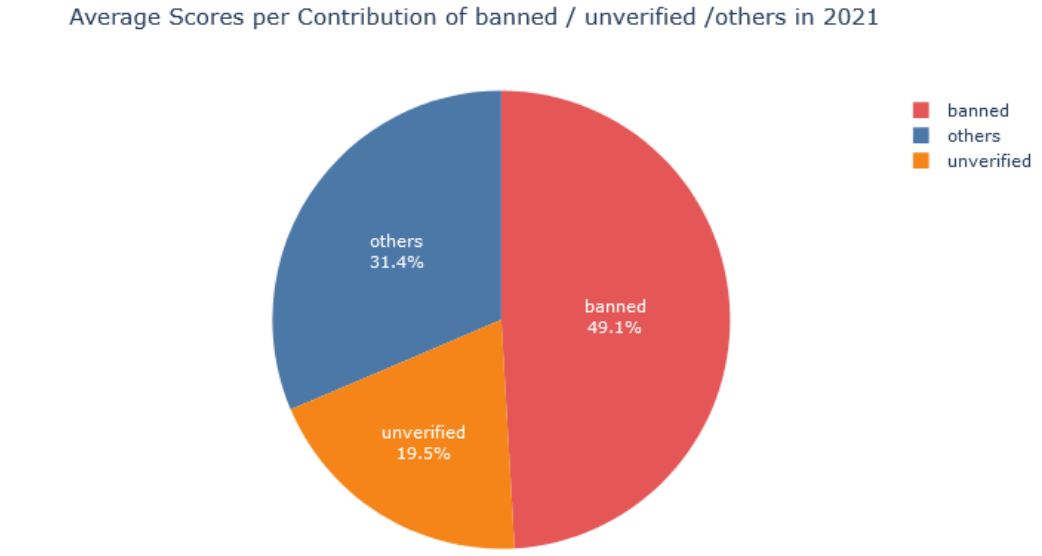


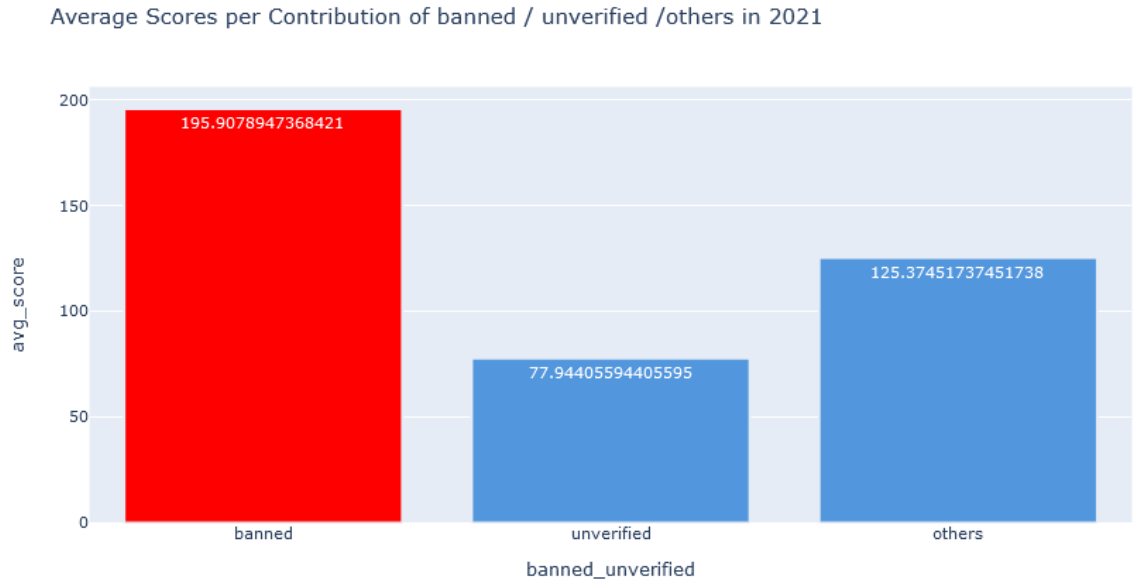
Average Scores per submission

	banned_unverified	n_submissions
0	others	1554
1	banned	228
2	unverified	143

	banned_unverified	score
0	banned	44667.0
1	others	194832.0
2	unverified	11146.0

	banned_unverified	score	n_submissions	avg_score
0	banned	44667.0	228	195.907895
1	others	194832.0	1554	125.374517
2	unverified	11146.0	143	77.944056

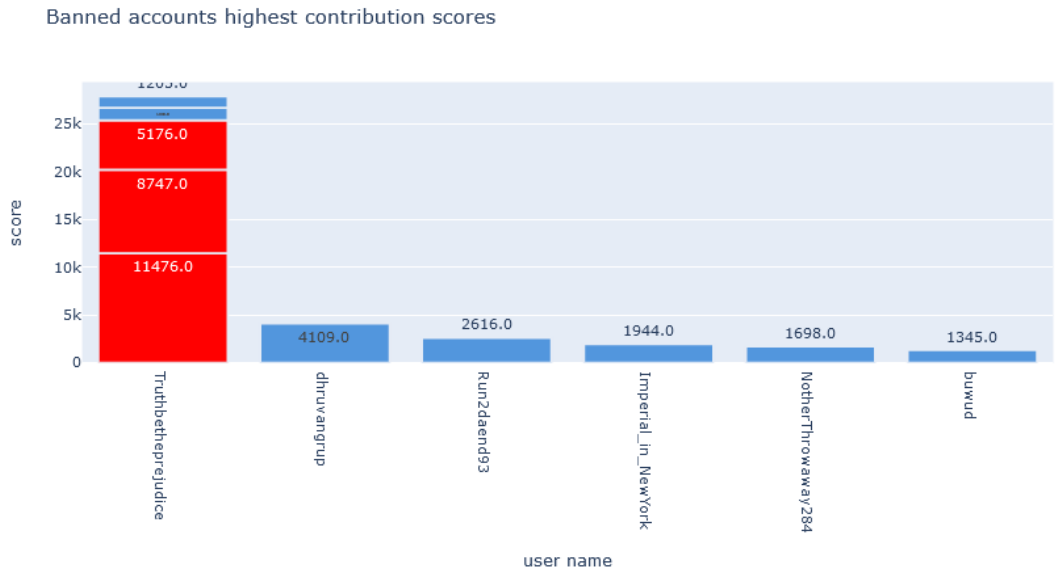




Banned Accounts

Banned-Accounts largest scores

- count 1315.000000
- mean 42.793156
- std 455.733256
- min -189.000000
- 25% 1.000000
- 50% 2.000000

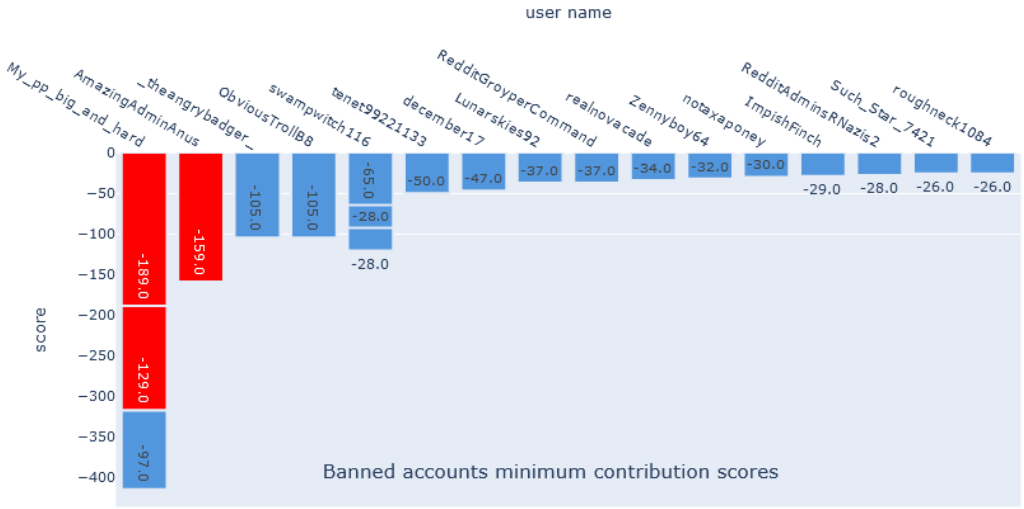


- 75% 7.000000
- max 11476.000000

NOTE: "**Truthbetheprejudice**": this user contributions got the highest scores (Since this user is banned, we have no user information but, we can further investigate his contributions)

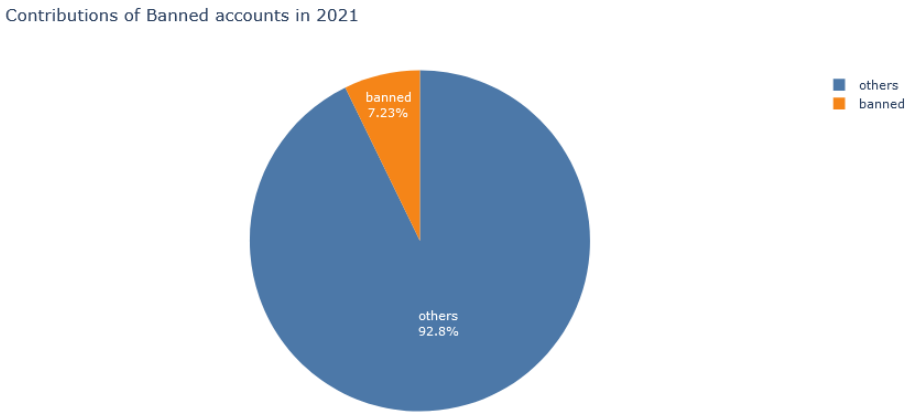
"**Truthbetheprejudice**": this user made **43 submissions**, **no comments** at all.

Banned-Accounts minimum scores

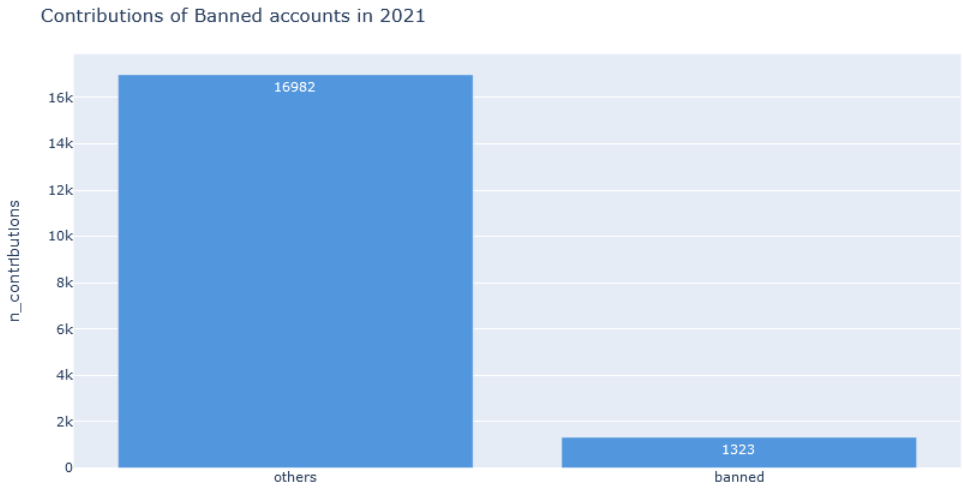


- **My_pp_big_and_hard** is posting sexual comments

Contributions of Banned accounts in 2021



- The percentage of 2021 contributions made by Banned accounts **7.23%**



-Total banned accounts contributions in 2021 is **1323.**

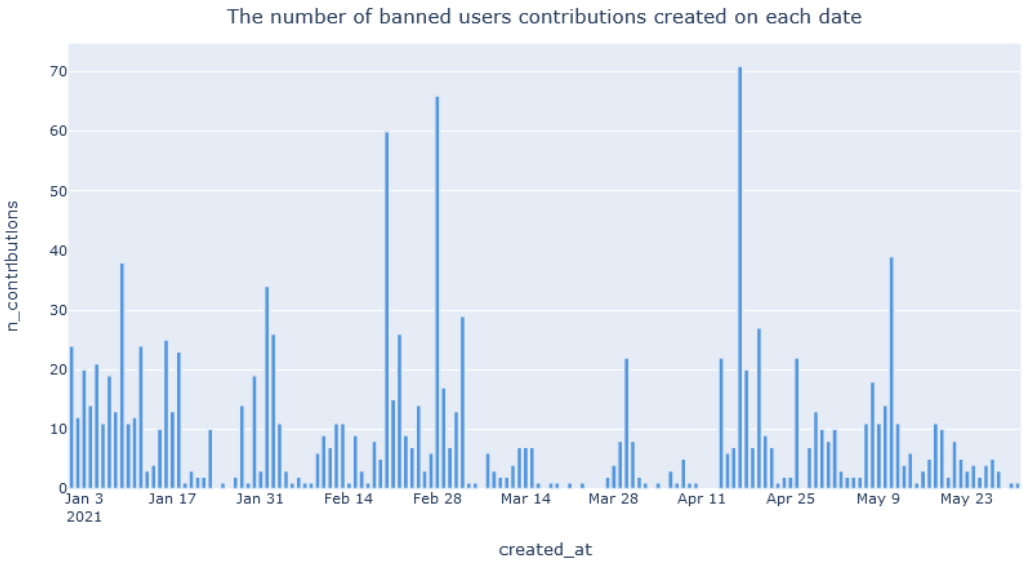
- Total banned accounts comments in 2021 is **1095.**

- banned comments

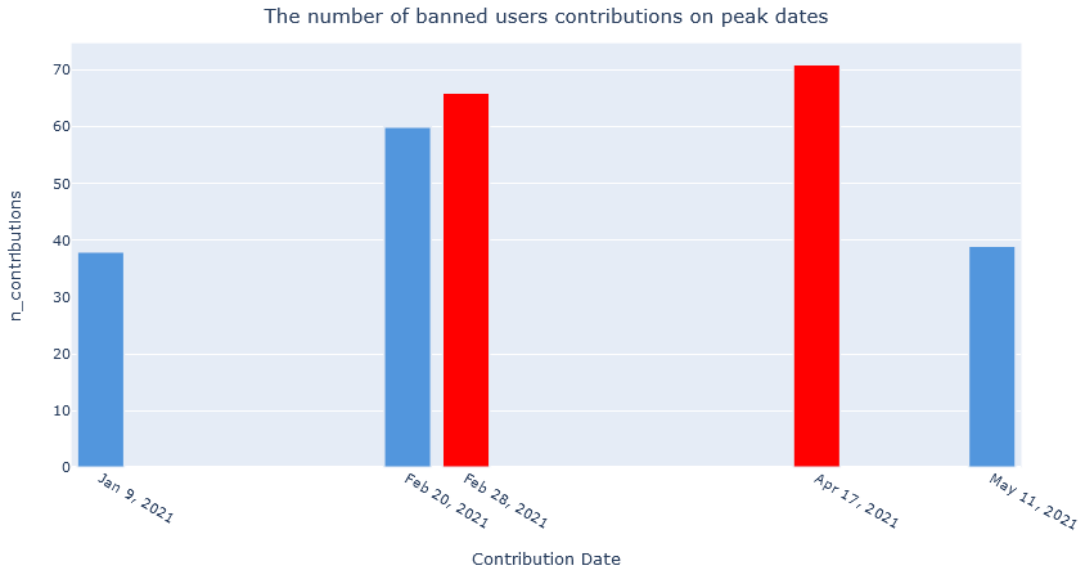
Stfu	3
Kik: Nigel__420	2
Dm to chat about her	2
Good.	2
Nobody cares	2

Banned Accounts Contributions Peaks

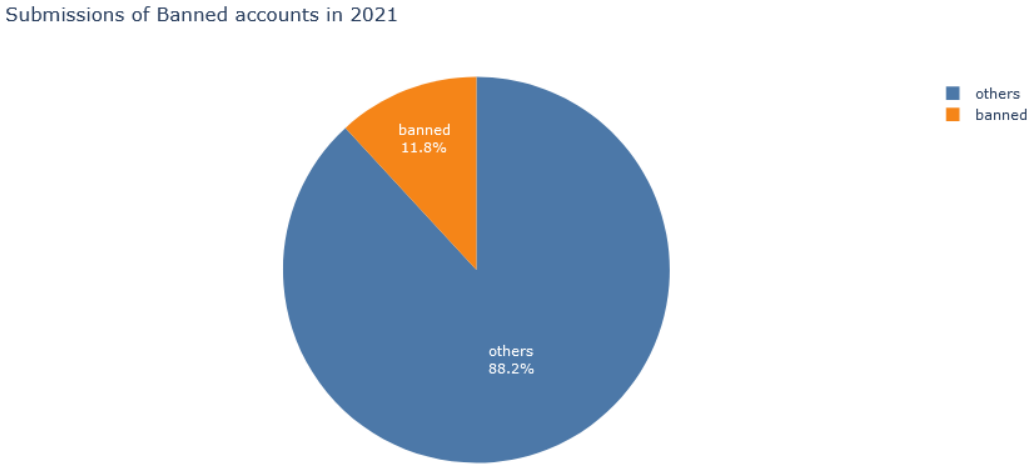
Which dates had the highest contributions of banned users?



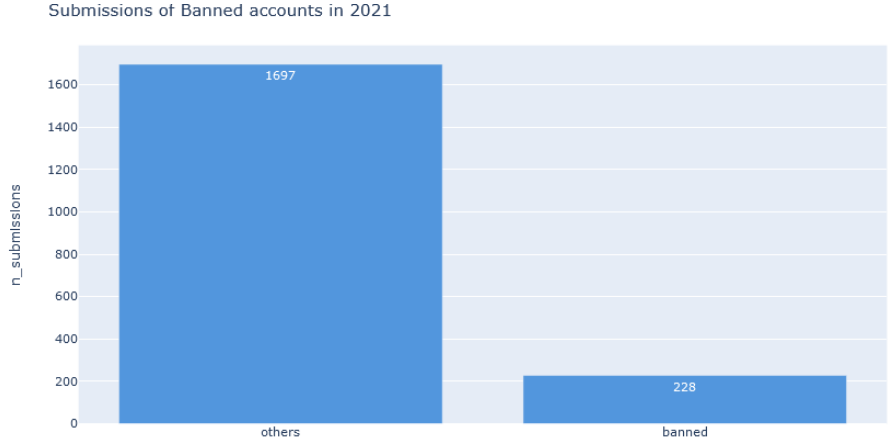
	created_at	n_contributions
92	2021-04-17	71
56	2021-02-28	66
48	2021-02-20	60
115	2021-05-11	39
8	2021-01-09	38
...	...	...
45	2021-02-17	1
83	2021-04-04	1
42	2021-02-14	1
36	2021-02-08	1
134	2021-05-31	1



Submissions of Banned accounts in 2021



- The percentage % of 2021 submissions made by Banned accounts **11.84 %**



- Total banned accounts submissions in 2021 is **228.**
- Banned submissions

```
Amber Heard
18
Amber Heard Touching Herself
17
Amber Heard Is Allegedly Being Investigated By LAPD For Perjury, Could Face Jail Time Over Johnny Depp Domesti
c Violence Accusations     6
Remove Amber Heard from Aquaman 2
6
Amber Heard Under Investigation for Perjury in Johnny Depp Domestic Violence Case
5
```

	user_name	subreddit	created_at
13831	90police	r/90sTits	2021-04-14 13:04:09
13832	90police	r/CMNF	2021-04-14 13:04:29
13833	90police	r/fyiff	2021-04-14 13:04:54
13834	90police	r/JanaDefi	2021-04-14 13:05:13
13835	90police	r/indiansgetlaid	2021-04-14 13:05:42
13836	90police	r/nonwhitebimbos	2021-04-14 13:06:00
13837	90police	r/Tgirlguru	2021-04-14 13:06:15
13838	90police	r/soniafucks	2021-04-14 13:06:31
13839	90police	r/GloriaV	2021-04-14 13:06:49
13840	90police	r/TheFamilyTrap	2021-04-14 13:07:07
13841	90police	r/HipDips	2021-04-14 13:07:26
13842	90police	r/Clithood	2021-04-14 13:07:42
13843	90police	r/Slutblonde	2021-04-14 13:07:58
13844	90police	r/AnimeBunnyGirls	2021-04-14 13:08:15
13845	90police	r/Dattaint	2021-04-14 13:08:34
13846	90police	r/desnudas	2021-04-14 13:08:51
13847	90police	r/Hot_n_Sexy	2021-04-14 13:09:12

NOTE: "**90police**": this user made 17 submissions within only 5 minutes ('Amber Heard Touching Herself').

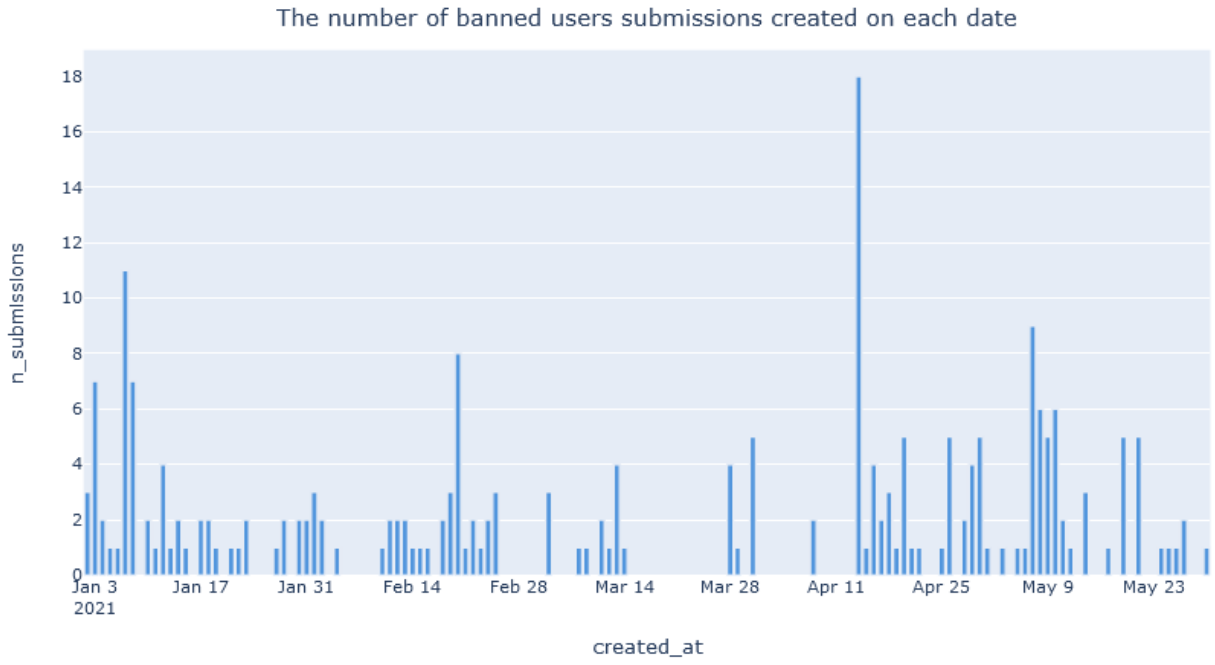
	user_name	subreddit	created_at
3252	the-speed-of-pain	r/pussypassdenied	2021-02-20 11:08:44
3253	the-speed-of-pain	r/JusticeForJohnnyDepp	2021-02-20 11:08:47
15505	Truthbetheprejudice	r/pussypassdenied	2021-04-29 18:36:22
15506	Truthbetheprejudice	r/entertainment	2021-04-29 18:36:27
15507	Truthbetheprejudice	r/MensRights	2021-04-29 18:36:40
15508	Truthbetheprejudice	r/movies	2021-04-29 18:36:53

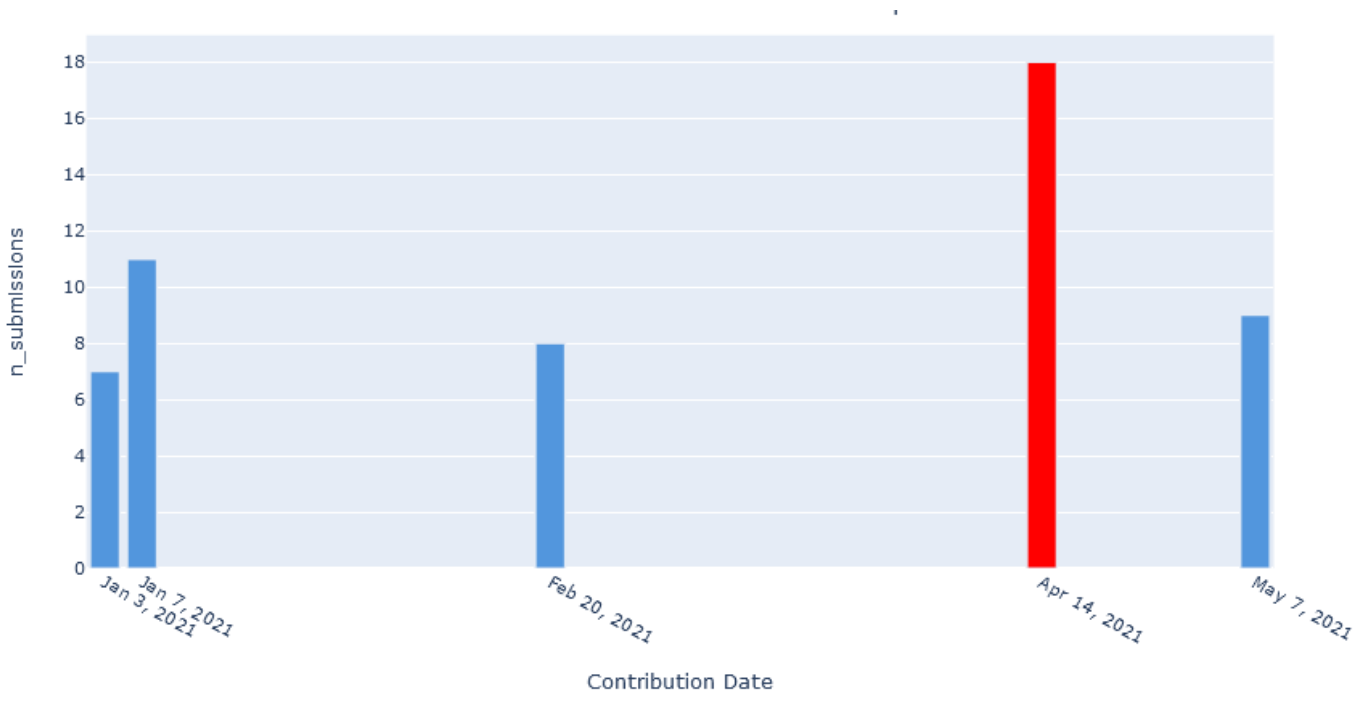
NOTE:

- "**Truthbetheprejudice**": this user made 4 submissions with the same text "Remove Amber Heard from Aquaman 2" within only 30 seconds!!
- "**the-speed-of-pain**": this user made 2 submissions with the same text "Remove Amber Heard from Aquaman 2" within only 3 seconds!!

Banned Accounts Submissions Peaks

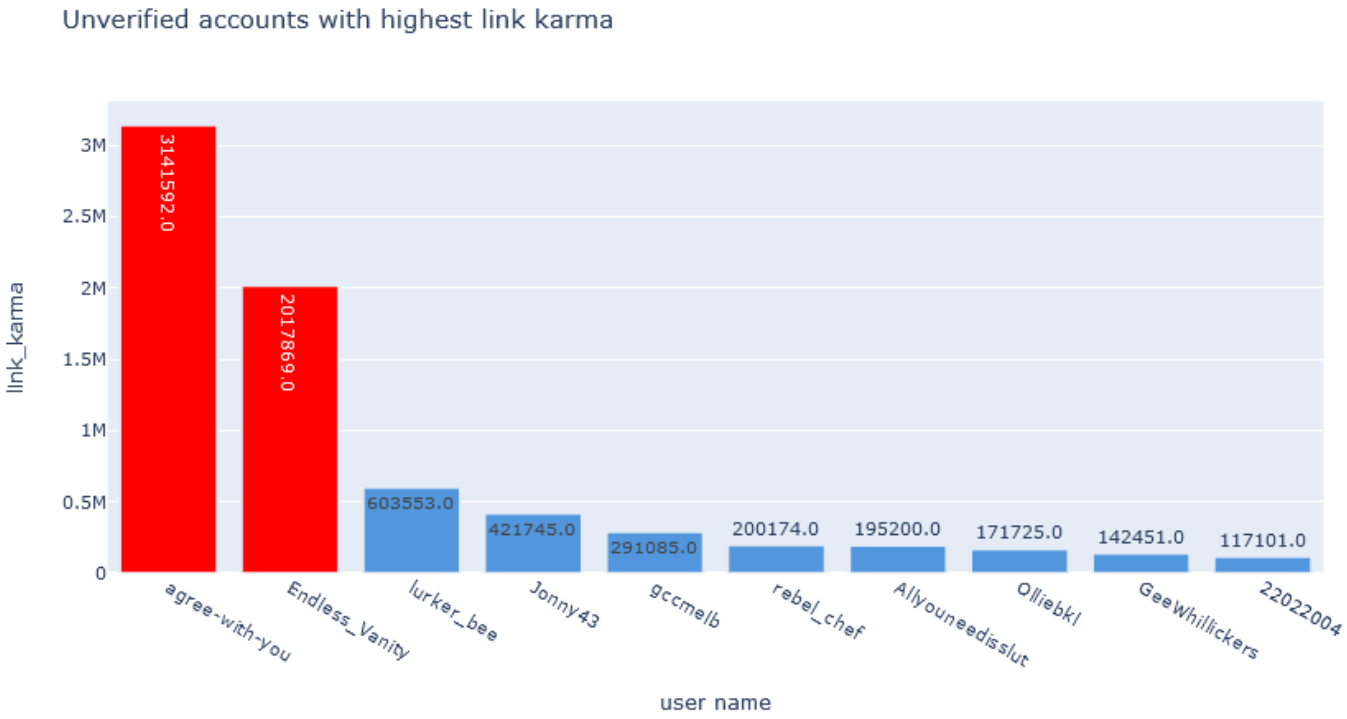
```
2898     2021-01-02
2939     2021-03-12
2941     2021-03-31
2942     2021-03-31
3019     2021-01-02
            ...
18117    2021-05-27
18165    2021-05-25
18207    2021-05-26
18221    2021-05-27
18285    2021-05-30
```



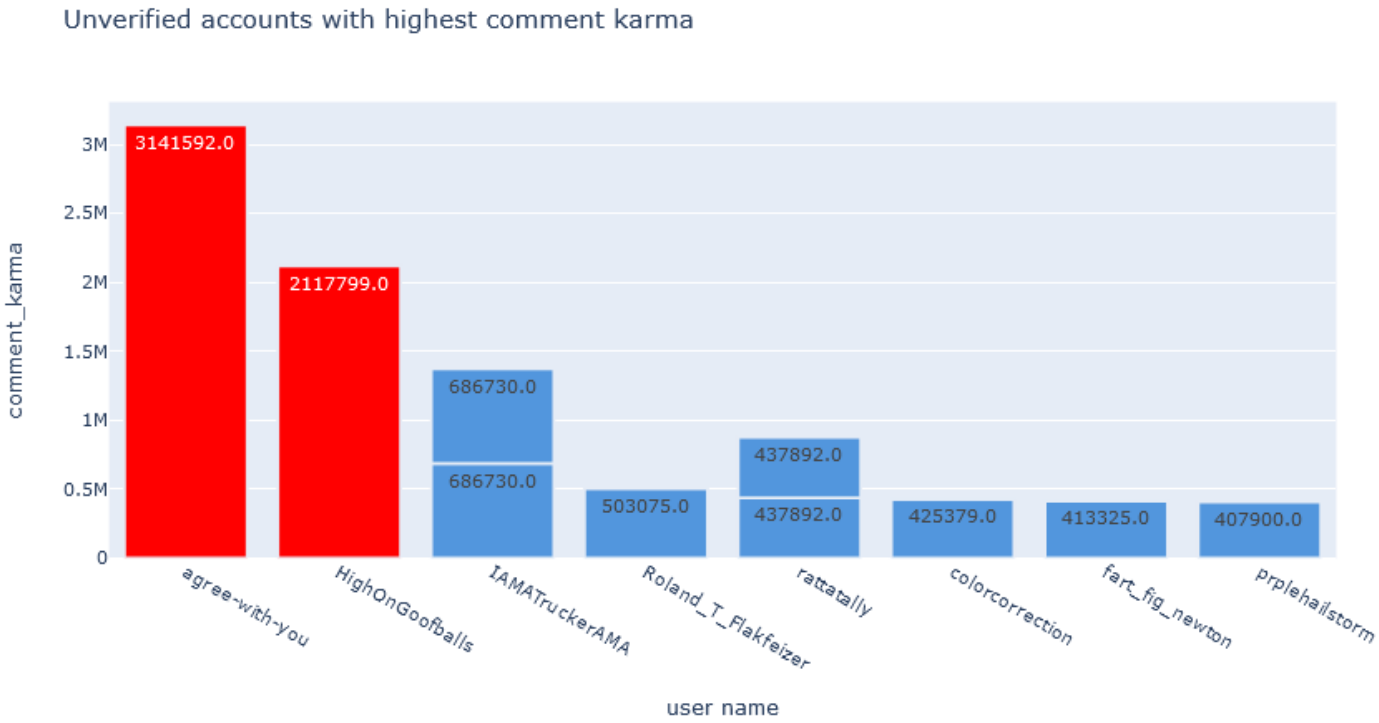


Unverified Accounts

Unverified Accounts With The Largest Link Karma



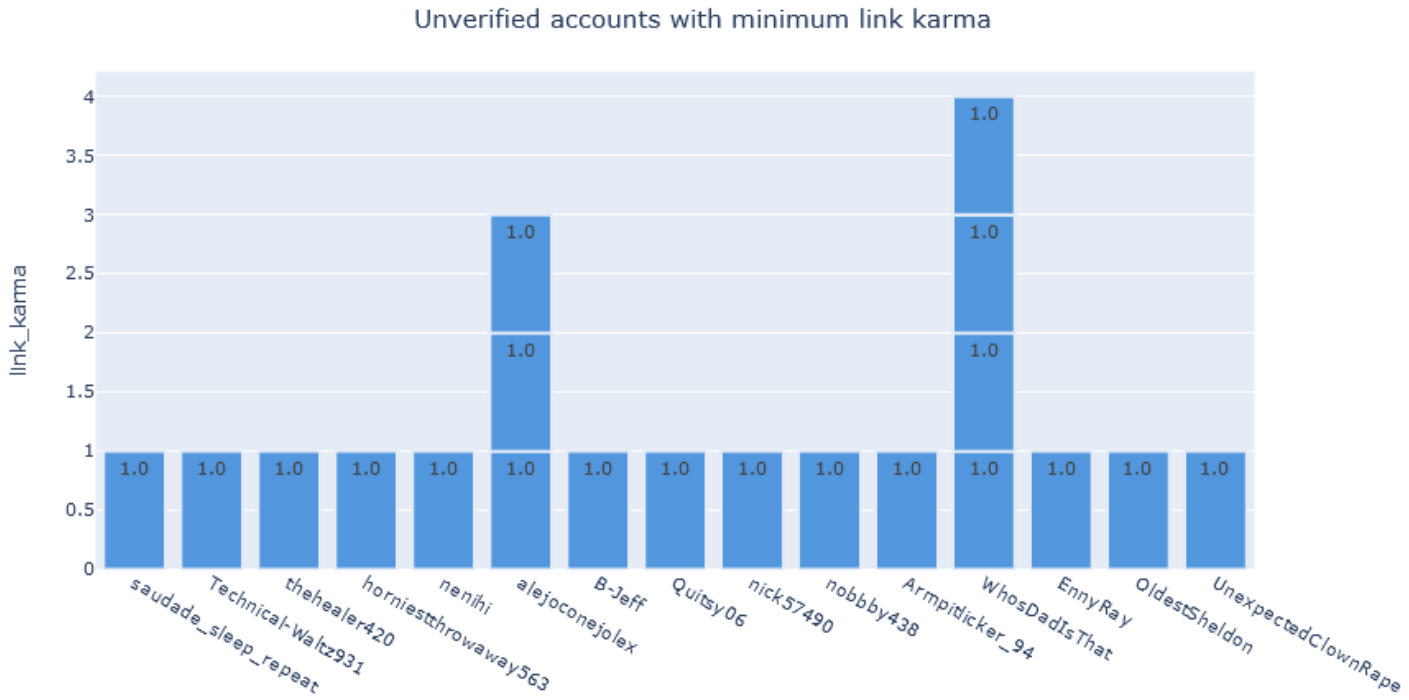
Unverified Accounts With The Largest Comment Karma



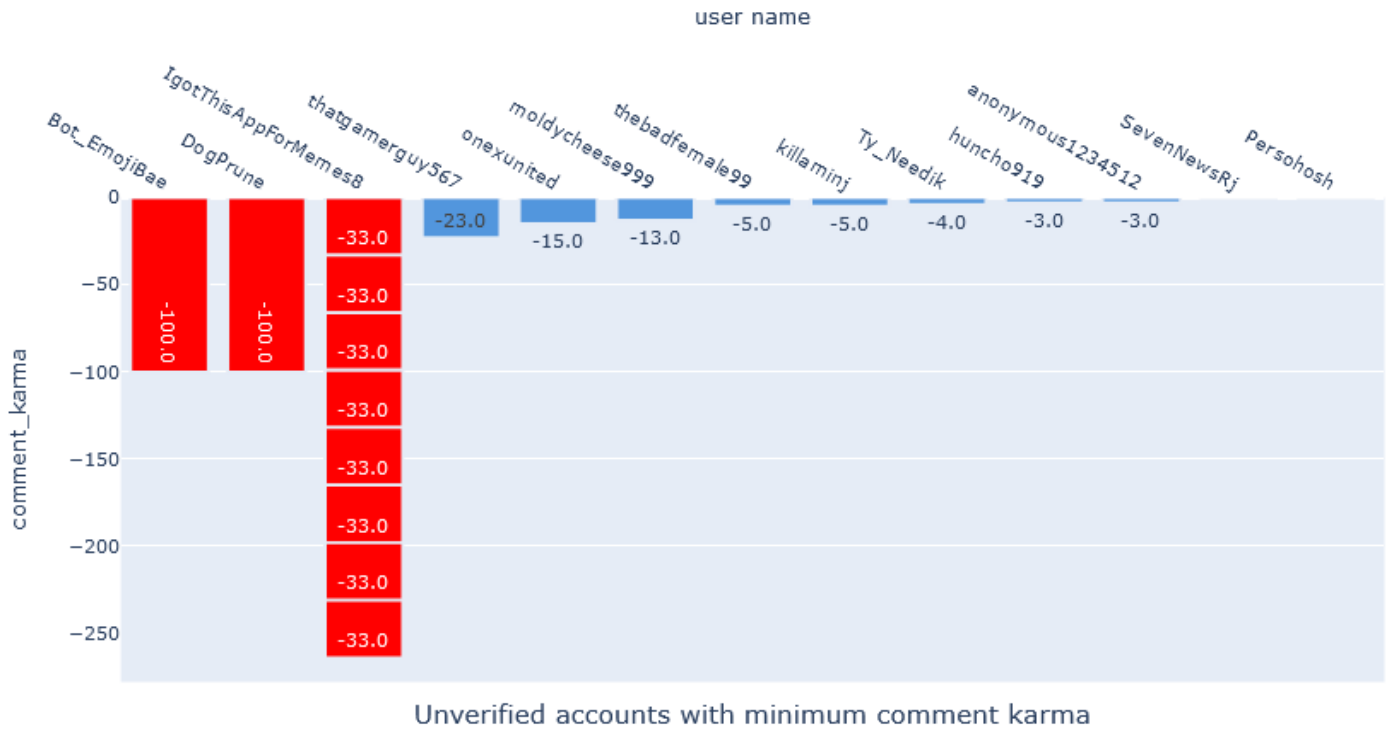
- Made be user **agree-with-you**

- Account Created at: 2018-03-11
- Comment Created at: 2021-03-04

Unverified Accounts With The Minimum Link Karma



Unverified Accounts With The Minimum Comment Karma



- **Bot_EmojiBae**

...	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year	diff	days_after_creation
...	False	False	False	-100.0	1.0	2021-02-13 02:18:31	unverified	2021	18 days 09:59:45	18.0

- **DogPrune**

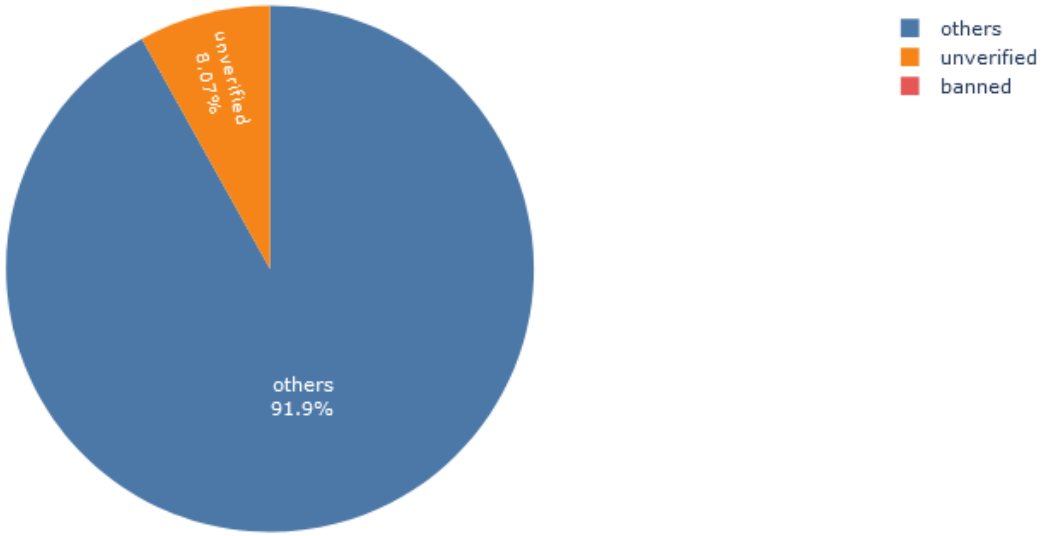
...	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year	diff	days_after_creation
...	True	False	False	-100.0	35.0	2020-12-25 20:20:09	unverified	2020	36 days 19:05:25	36.0

- **IgotThisAppForMemes8**

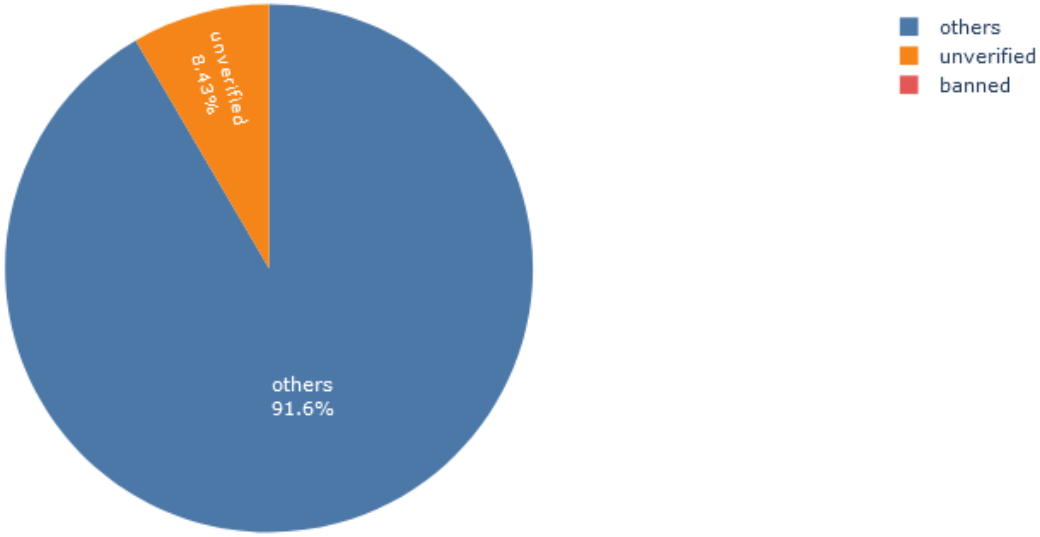
...	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year	diff	days_after_creation
...	False	False	False	-33.0	181.0	2019-04-23 06:35:57	unverified	2019	715 days 01:08:14	715.0
...	False	False	False	-33.0	181.0	2019-04-23 06:35:57	unverified	2019	715 days 01:08:38	715.0
...	False	False	False	-33.0	181.0	2019-04-23 06:35:57	unverified	2019	715 days 01:08:57	715.0
...	False	False	False	-33.0	181.0	2019-04-23 06:35:57	unverified	2019	715 days 01:09:08	715.0
...	False	False	False	-33.0	181.0	2019-04-23 06:35:57	unverified	2019	715 days 01:09:29	715.0
...	False	False	False	-33.0	181.0	2019-04-23 06:35:57	unverified	2019	715 days 01:10:32	715.0
...	False	False	False	-33.0	181.0	2019-04-23 06:35:57	unverified	2019	715 days 01:11:09	715.0
...	False	False	False	-33.0	181.0	2019-04-23 06:35:57	unverified	2019	744 days 17:05:29	744.0

Total Link / Comment Karma

Total Link_Karma of unverified accounts in 2021

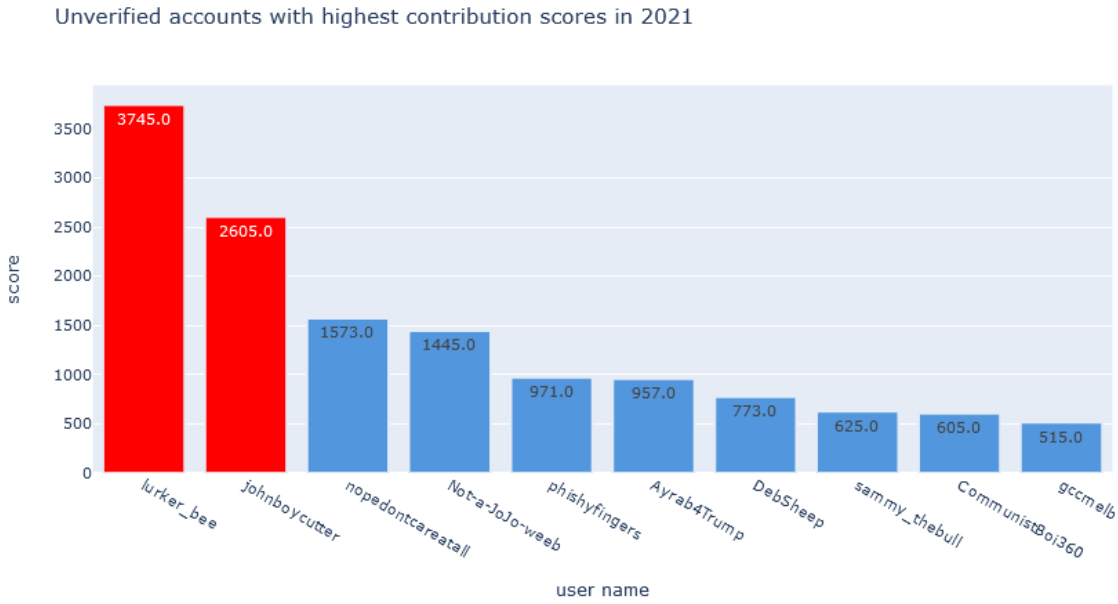


Total Comment_Karma of unverified accounts in 2021



Explore the largest scores

- count 2078.000000
- mean 16.089028
- std 121.927349
- min -73.000000
- 25% 1.000000
- 50% 2.000000
- 75% 6.000000
- max 3745.000000



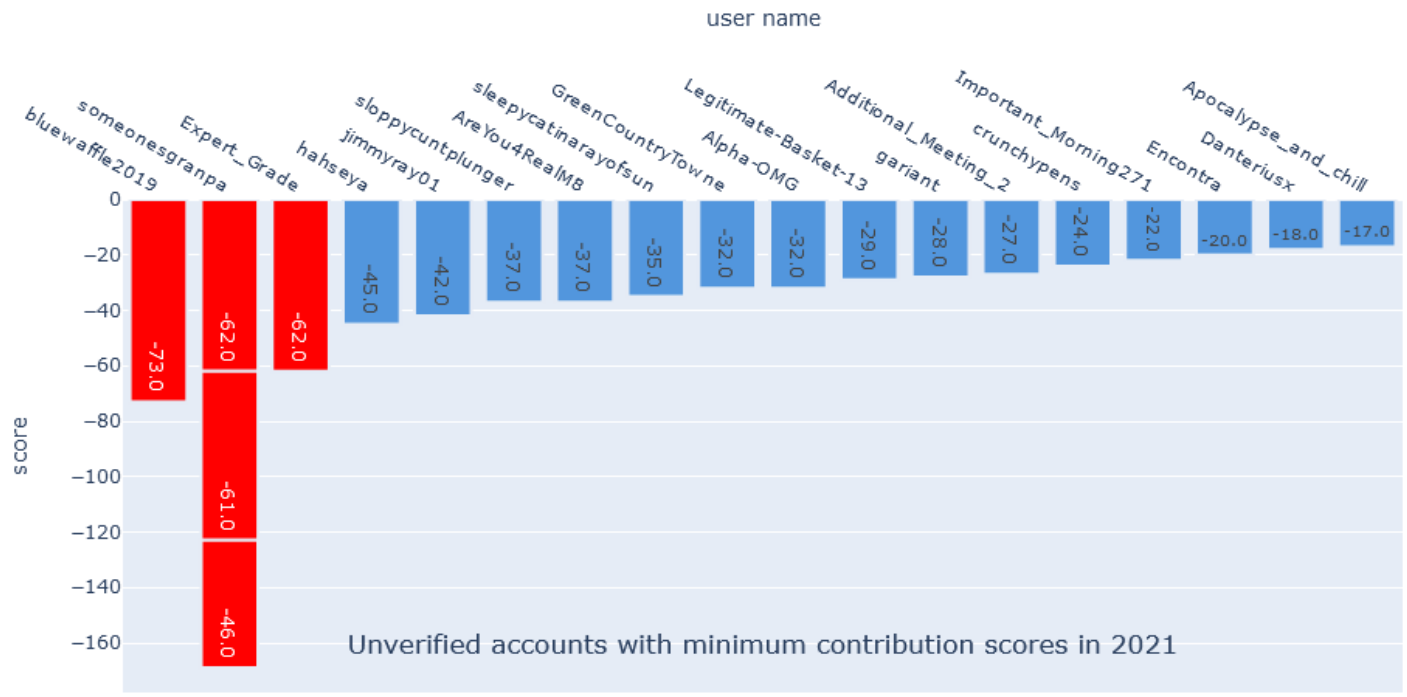
- **Lurker_bee**

has_verified_email	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year	diff	days_after_creation
False	True	False	False	46000.0	603553.0	2013-06-30 05:32:46	unverified	others	2873 days 09:24:03	2873.0

  - **Submission [link](#) (LAPD** --> Los Angeles Police Department)
- **Johnboycutter**

...	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year	diff	days_after_creation
...	False	False	False	4796.0	15565.0	2016-03-26 12:47:09	unverified	others	1745 days 14:11:35	1745.0

Explore the minimum scores



- **bluewaffle2019**

...	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year	diff	days_after_creation
...	False	False	False	24097.0	93.0	2019-08-12 10:10:21	unverified	2019	569 days 13:16:36	569.0

- **someonesgranpa**

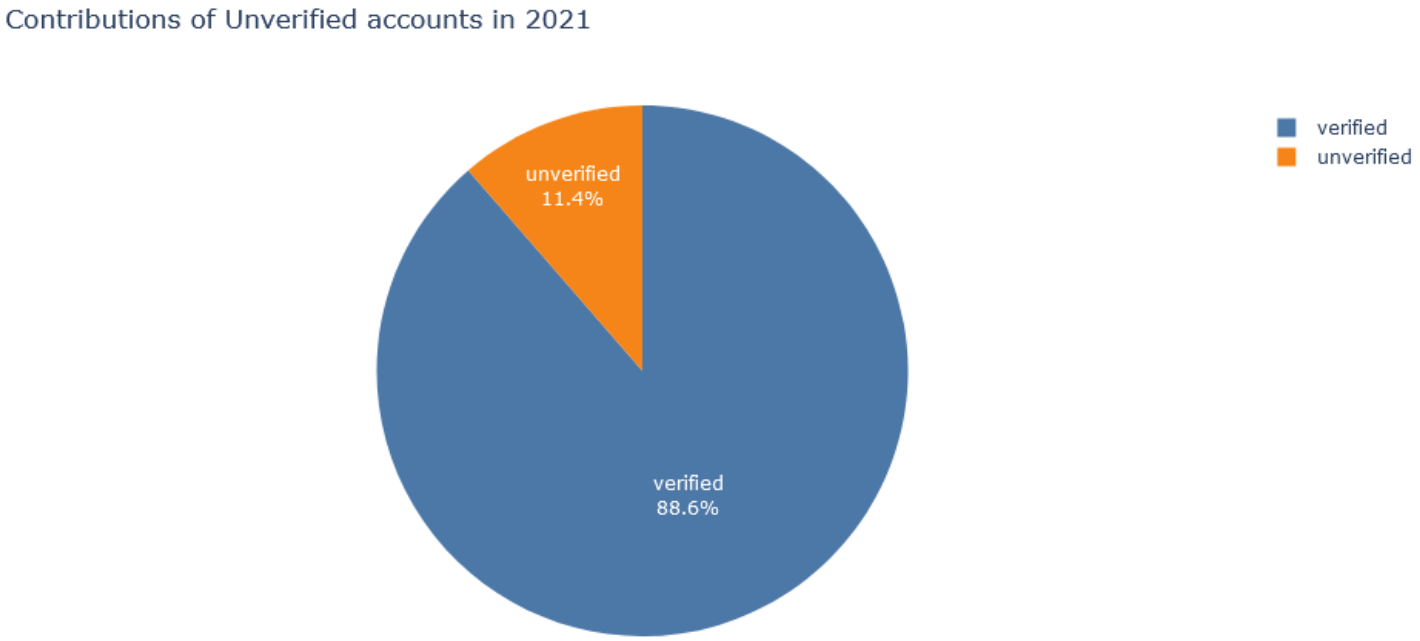
...	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year	diff	days_after_creation
...	False	False	False	4448.0	33.0	2021-01-13 00:48:37	unverified	2021	38 days 14:37:22	38.0

- **Expert_Grade**

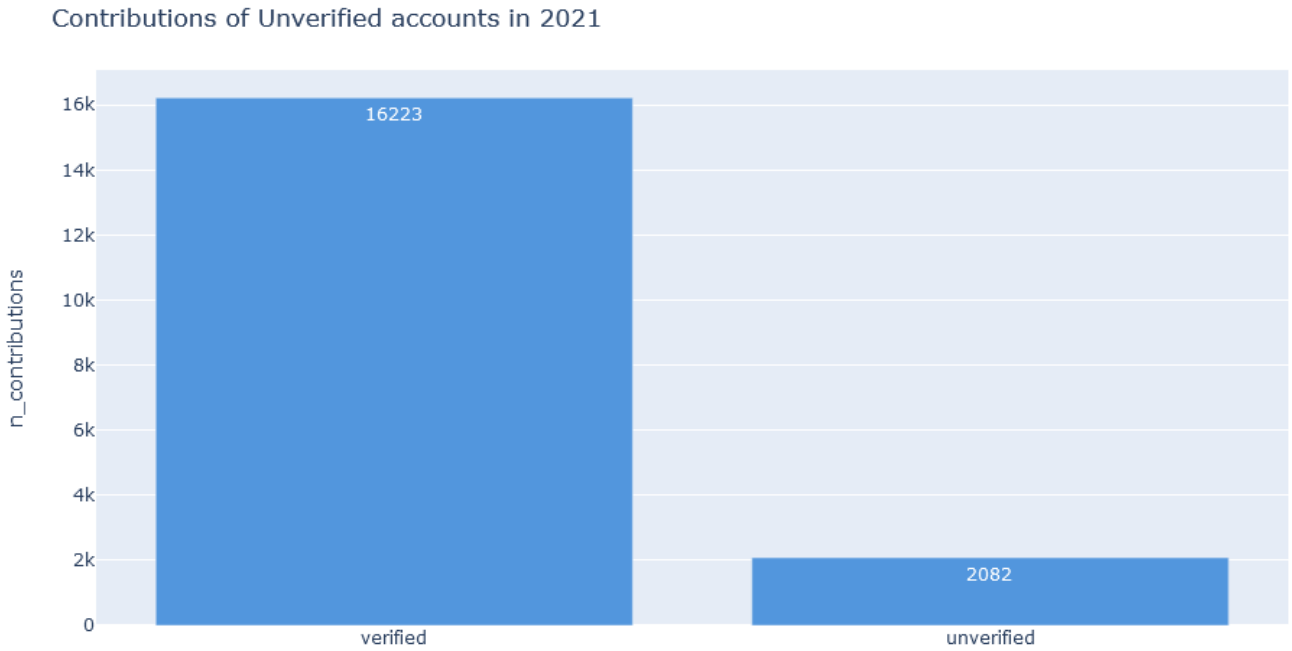
score	top_level	...	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year	diff	days_after_creation
-62.0	comment	...	False	False	False	1774.0	160.0	2020-08-25 15:46:24	unverified	2020	136 days 20:49:58	136.0

- **Submission link.**

Contributions of Unverified accounts in 2021



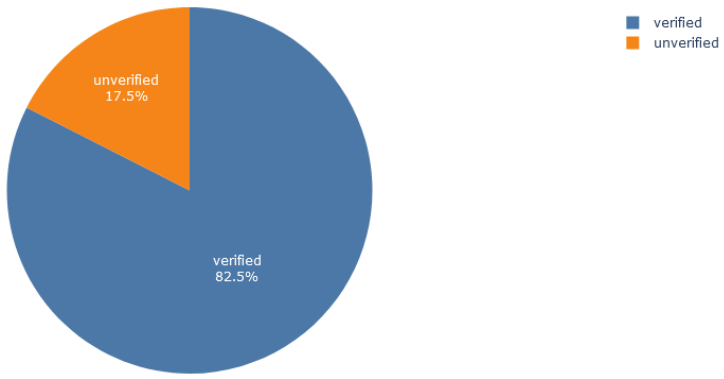
- The percentage of 2021 contributions made by Unverified accounts **11.37%**



- Total unverified accounts contributions in 2021 **2082.**

Peak day contributions 17/04/2021

Contributions of Unverified accounts on peak day (17/04/2021)



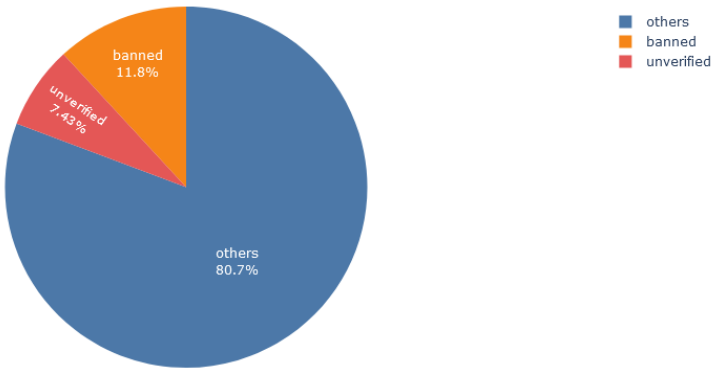
Comments

- Total **unverified** accounts **comments** in 2021 **1939.**
- **Unverified comments.**

Lol	5
Same	5
Amber	5
Amber Heard	3
Brie	2

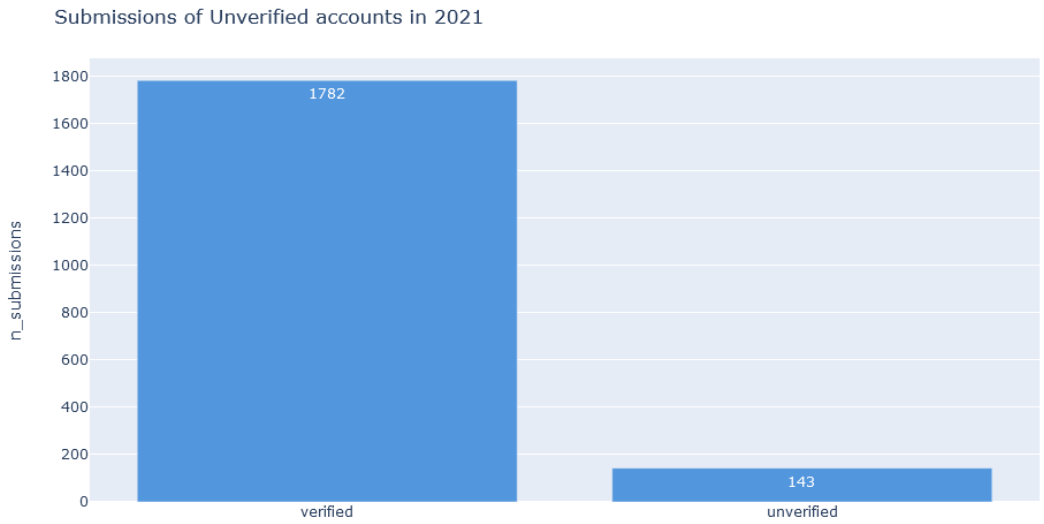
Submissions

Submissions of banned / unverified /others in 2021



	banned_unverified	n_submissions
0	others	1554
1	banned	228
2	unverified	143

NOTE: About 20% of 2021 submissions were made by banned and unverified accounts.



- The percentage % of 2021 **submissions** made by **Unverified** accounts **7.43**
- Total unverified accounts submissions in 2021 **143.**
- **Unverified comments**

```
Amber Heard Touching Herself
22
Can Somebody RP as Amber Heard for me longterm?
6
Amber Heard
6
🔥 Amber Heard - Famosa por sus papeles en Aquaman , se filtro su pack y está disponible en mi canal🔥 Únete : 👇👇👇 http
s://t.me/joinchat/UaR5o3Vgs9kxWY-0 👆👆👆     2
Is Amber Heard hot?
2
```

	user_name	user_created_at	submission_comment	created_at
13808	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:17:01
13809	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:17:03
13810	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:17:06
13811	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:17:06
13812	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:17:09
13813	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:17:09
13814	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:17:12
13815	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:17:12
13816	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:17:19
13817	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:21:45
13818	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:22:05
13819	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:22:35
13820	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:23:06
13821	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:23:30
13822	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:23:58
13823	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:24:23
13824	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:24:50
13825	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:25:15
13826	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:25:40
13827	owenlinx	2019-01-01 09:15:33	submission	2021-04-14 12:26:07
13868	garretdanielkelly	2016-12-12 03:40:01	submission	2021-04-14 19:38:02
13869	garretdanielkelly	2016-12-12 03:40:01	submission	2021-04-14 19:38:02

- **"owenlinx" , "garretdanielkelly"** Both users are bots since, they posted more than one different submission with the same submission text "Amber Heard Touching Herself" in exactly the same second (sexual content).

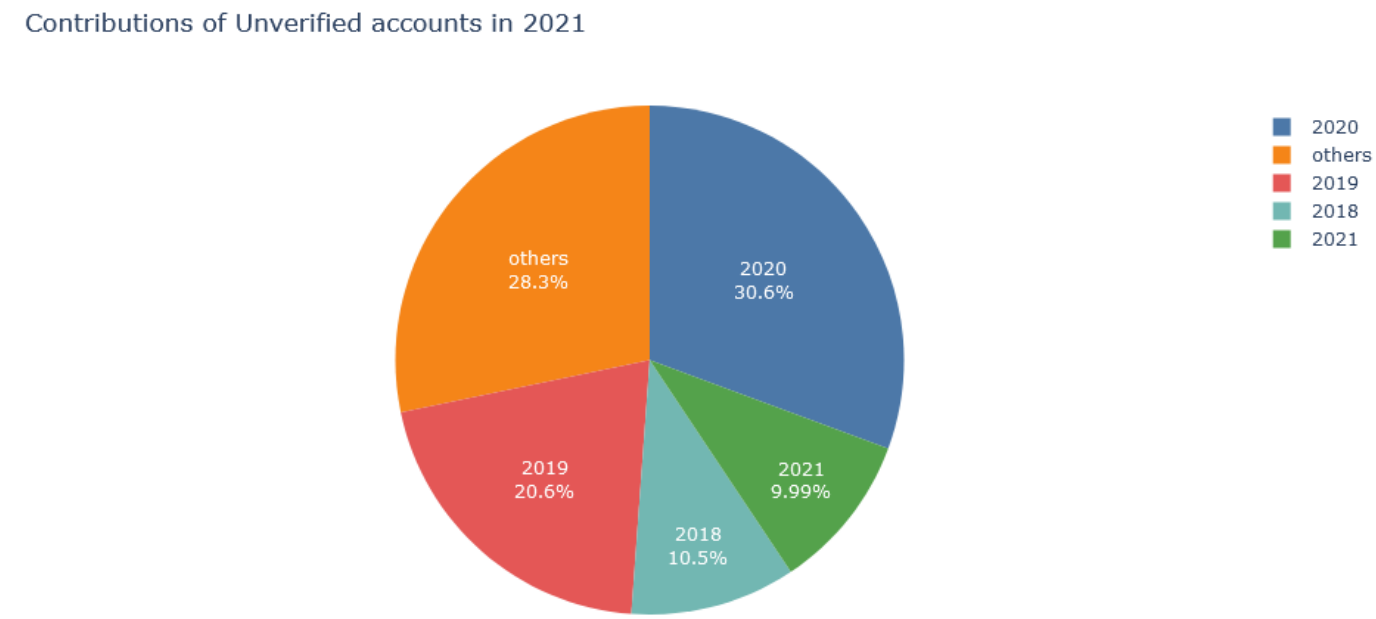
	user_name	user_created_at	submission_comment	created_at
2923	RoleplayGuy21	2020-11-06 18:10:49	submission	2021-02-25 01:11:34
2924	RoleplayGuy21	2020-11-06 18:10:49	submission	2021-02-25 19:57:10
2925	RoleplayGuy21	2020-11-06 18:10:49	submission	2021-02-25 21:07:11
18054	RoleplayTime21	2021-04-14 11:10:20	submission	2021-05-21 18:08:45
18055	RoleplayTime21	2021-04-14 11:10:20	submission	2021-05-21 18:42:25
18056	RoleplayTime21	2021-04-14 11:10:20	submission	2021-05-21 20:34:18

"RoleplayGuy21" , "RoleplayTime21" Two different accounts posting submissions with the same submission text "Can Somebody RP as Amber Heard for me longterm?".

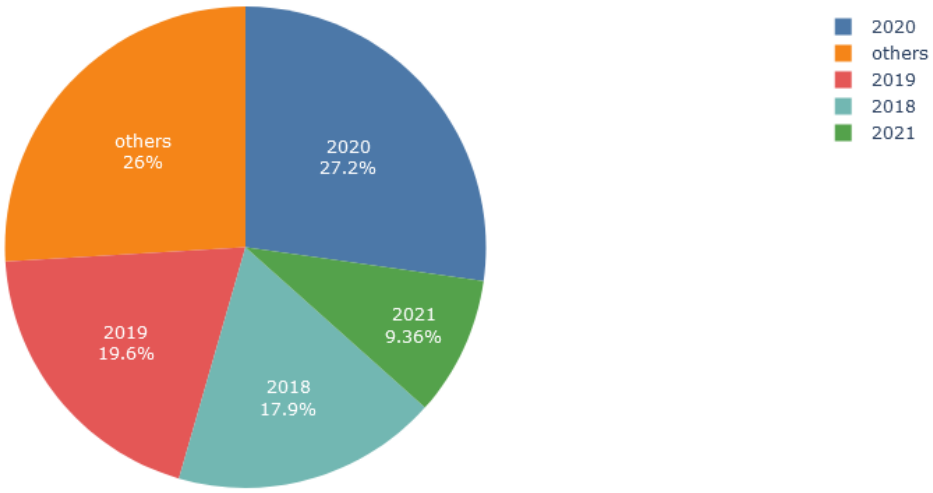
(sexual content)

The account creation year of the unverified accounts contributed in 2021

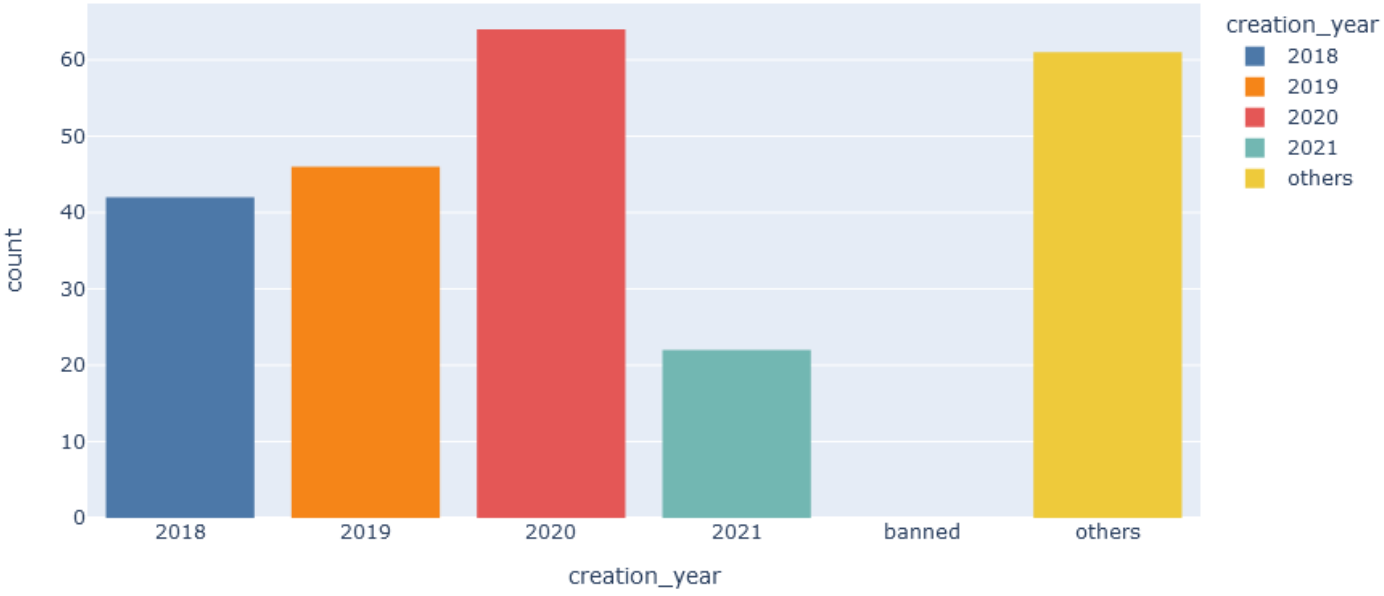
Contributions



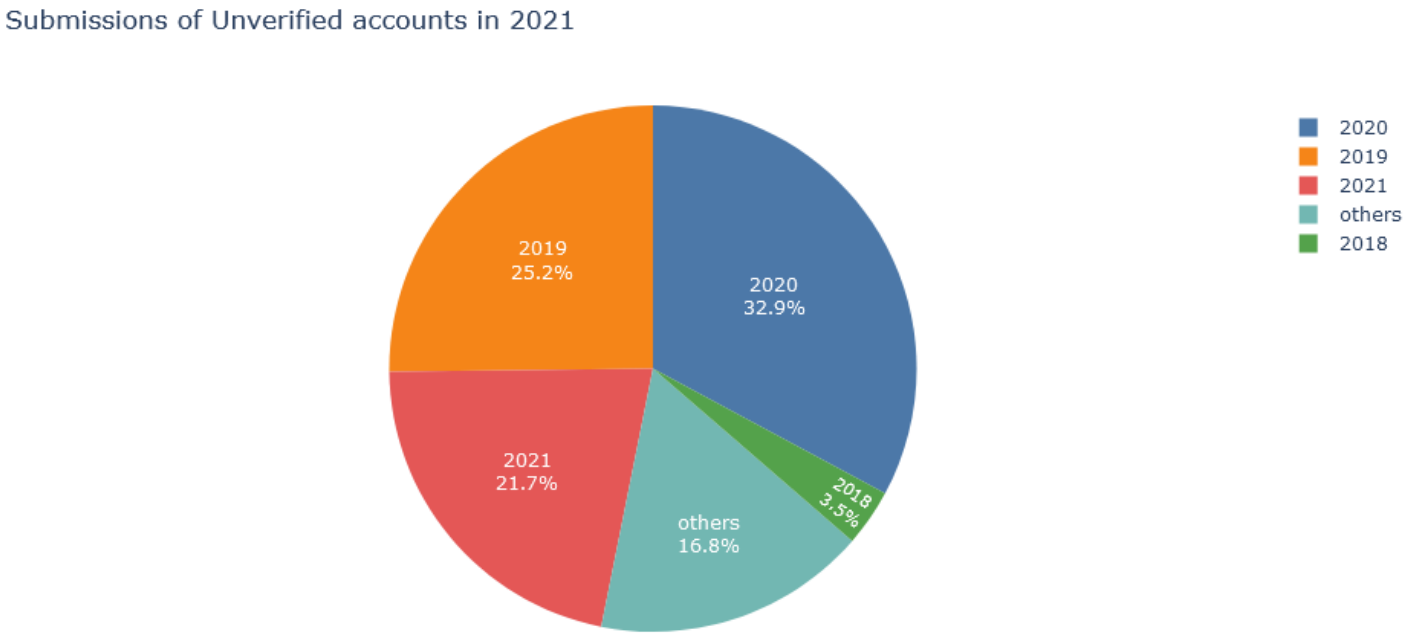
Contributions of unverified accounts on the peak day (2021-04-17)

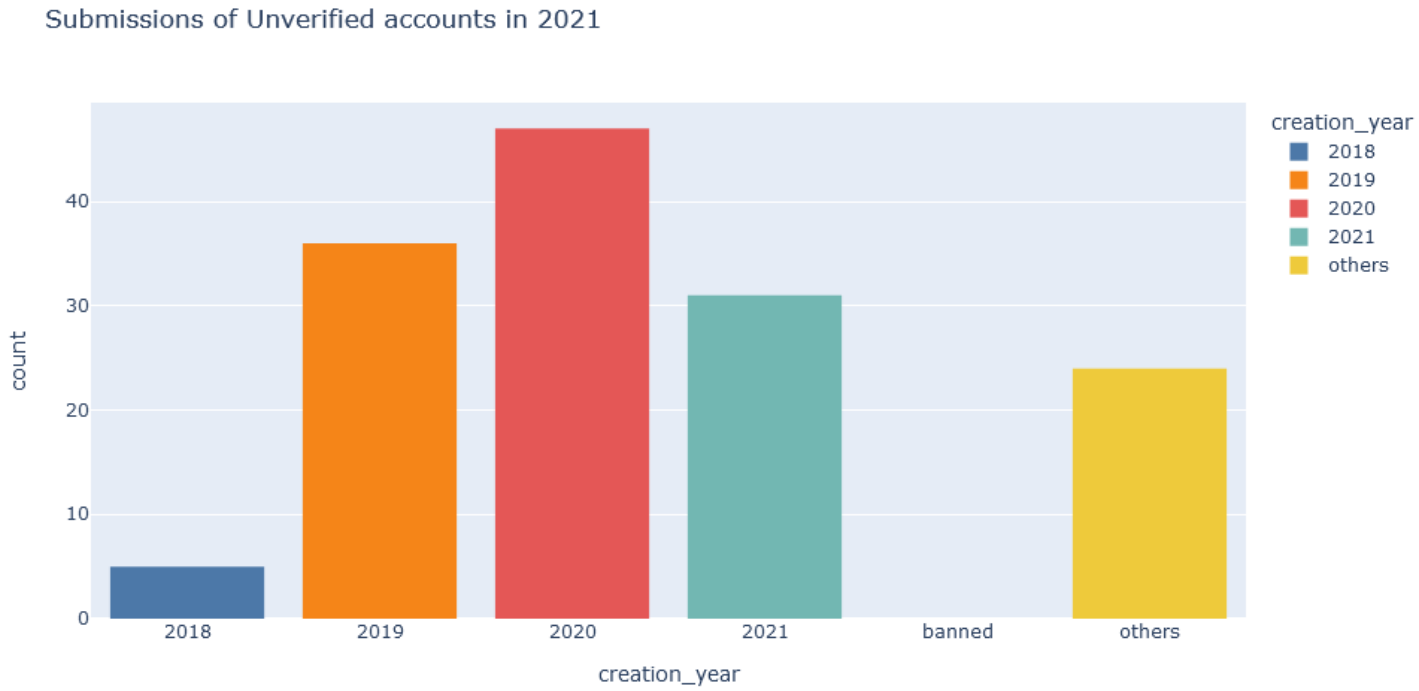


Contributions of unverified accounts on the peak day (2021-04-17)



Submissions





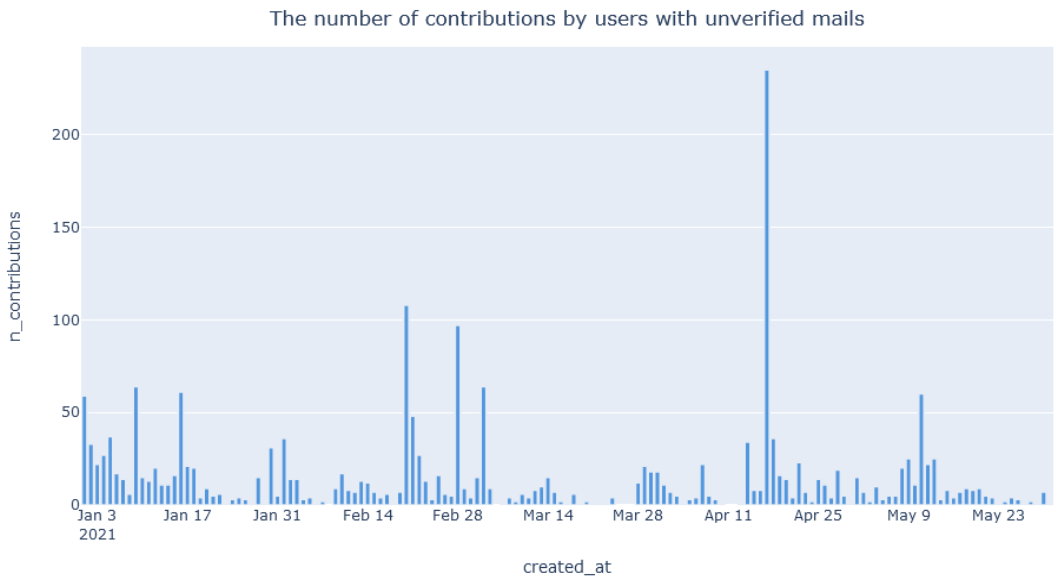
- Unverified Accounts made no submissions on the beak day 17/04/2021

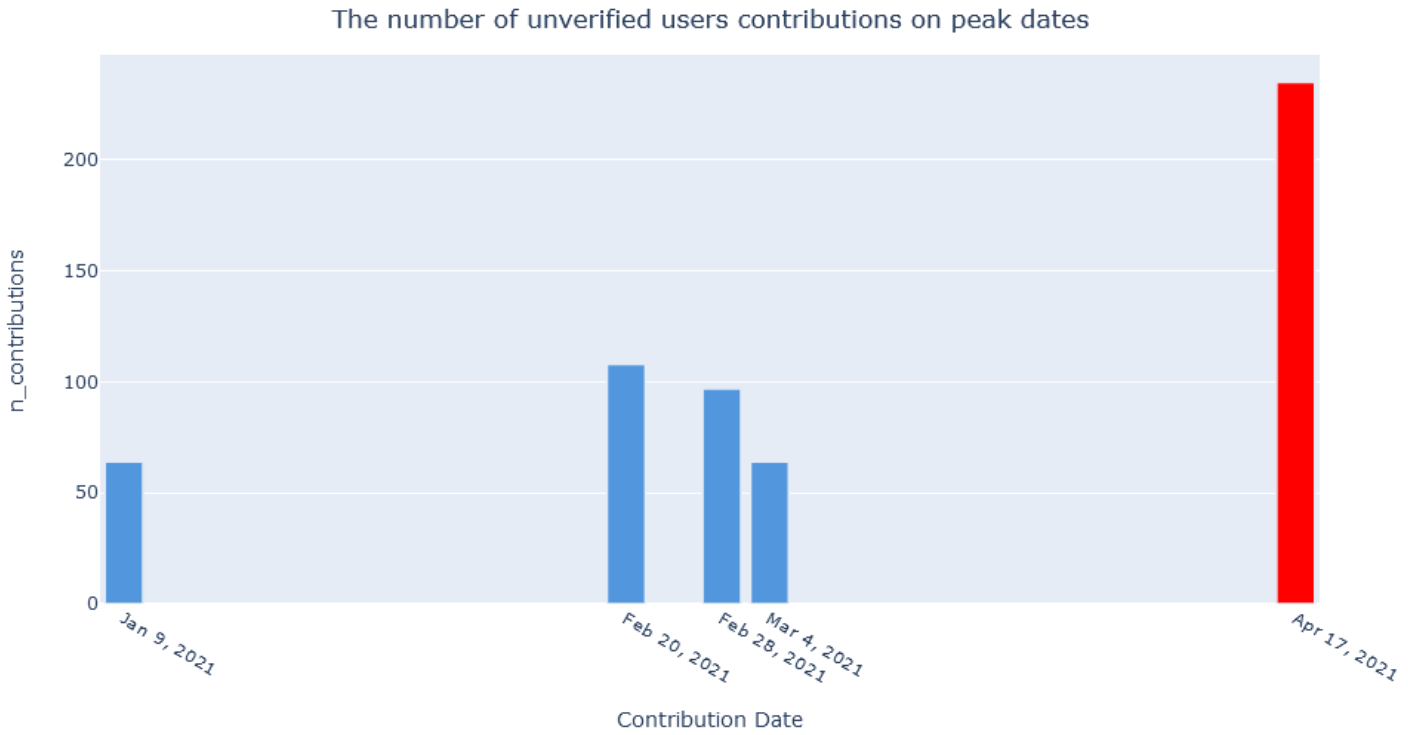
child_id	permalink	text	parent_id	subreddit	created_at	sentiment_blob	sentiment_nltk	score	top_level	...	is_mod	is_gold	is_banned	comment_karma

0 rows × 24 columns

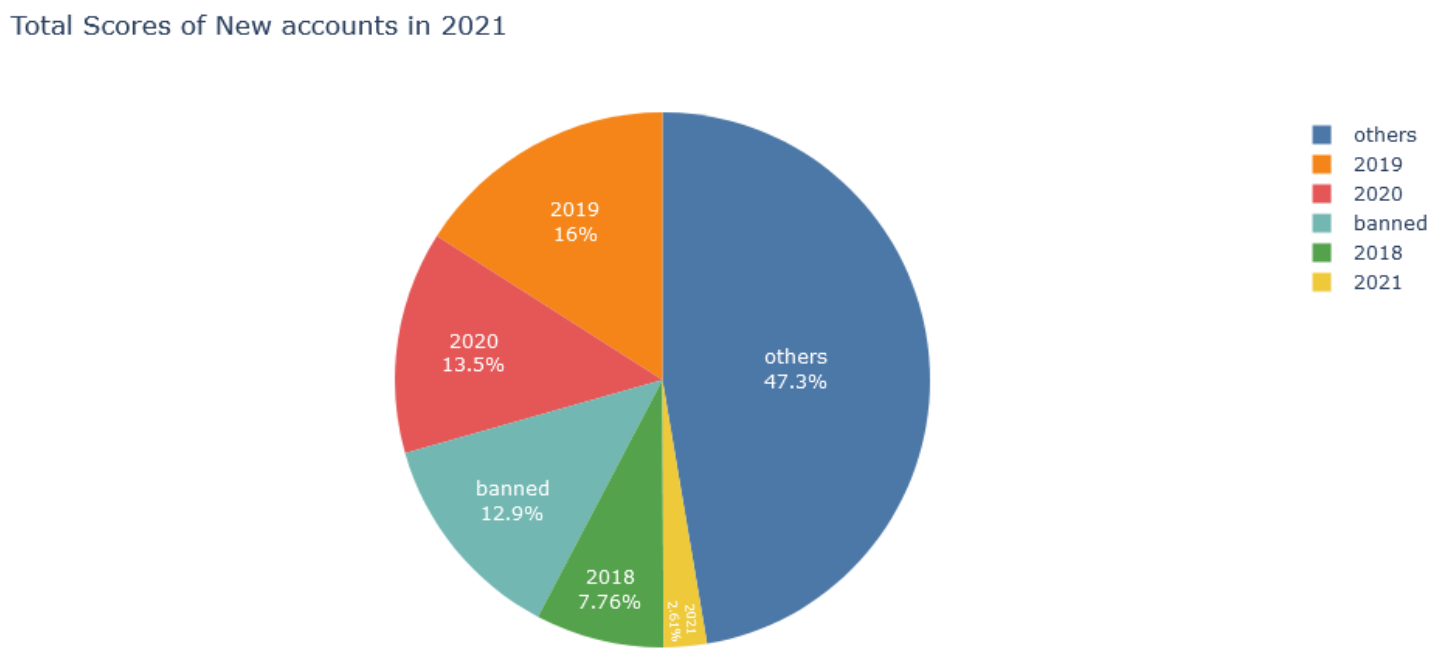
Which dates had the highest contributions of unverified accounts?

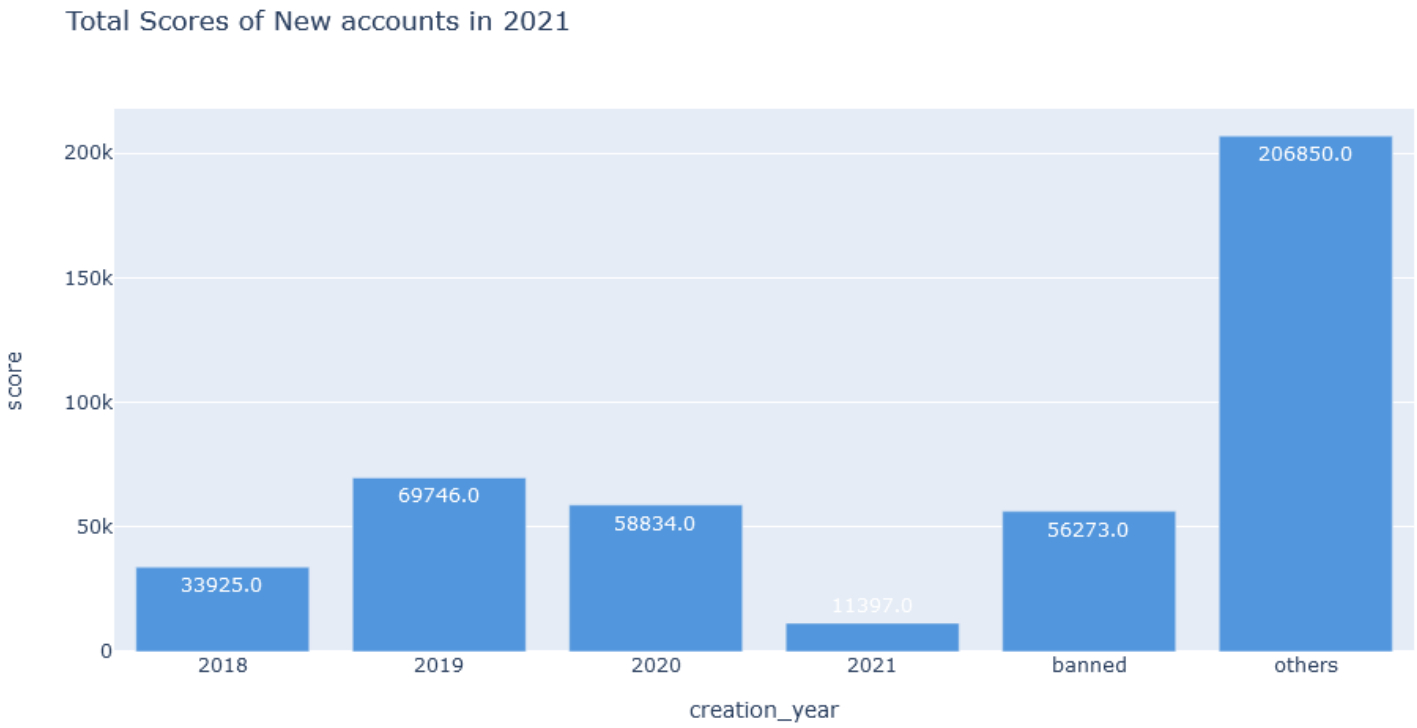
	created_at	n_contributions
99	2021-04-17	235
49	2021-02-20	108
57	2021-02-28	97
8	2021-01-09	64
61	2021-03-04	64
...	...	...
95	2021-04-13	1
77	2021-03-21	1
78	2021-03-22	1
79	2021-03-23	1
143	2021-05-31	1



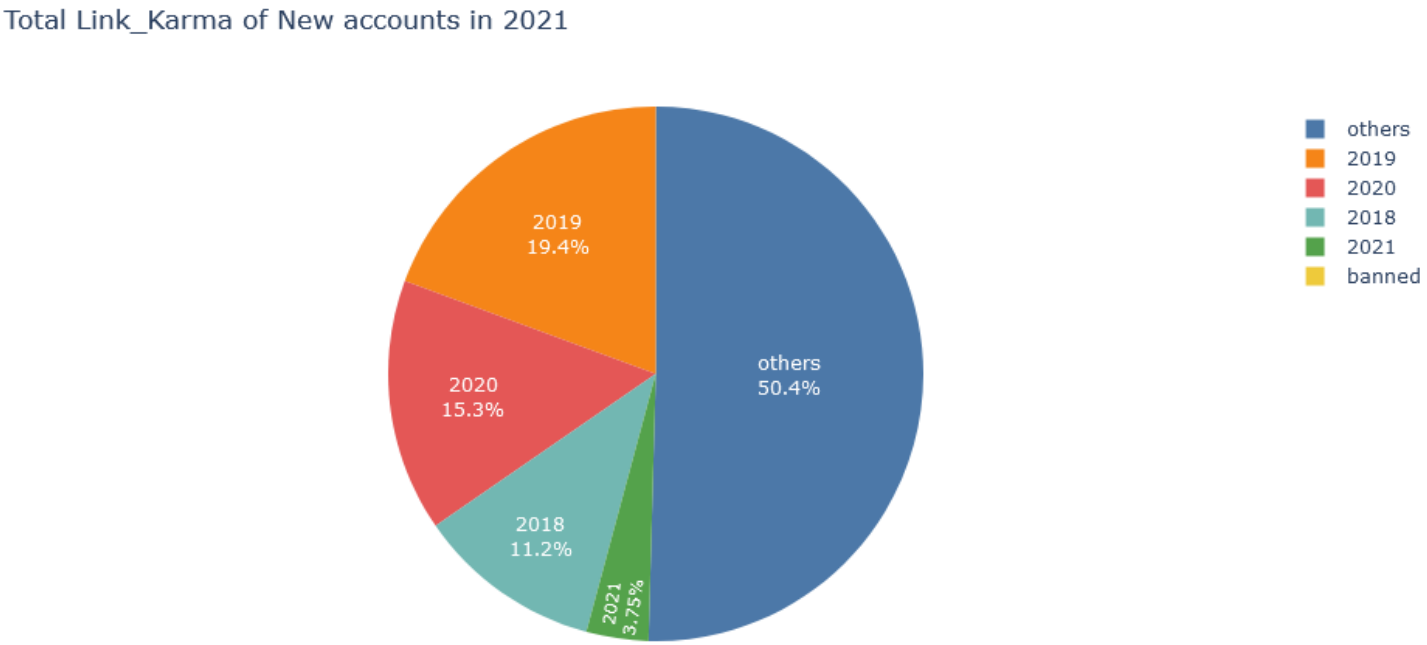


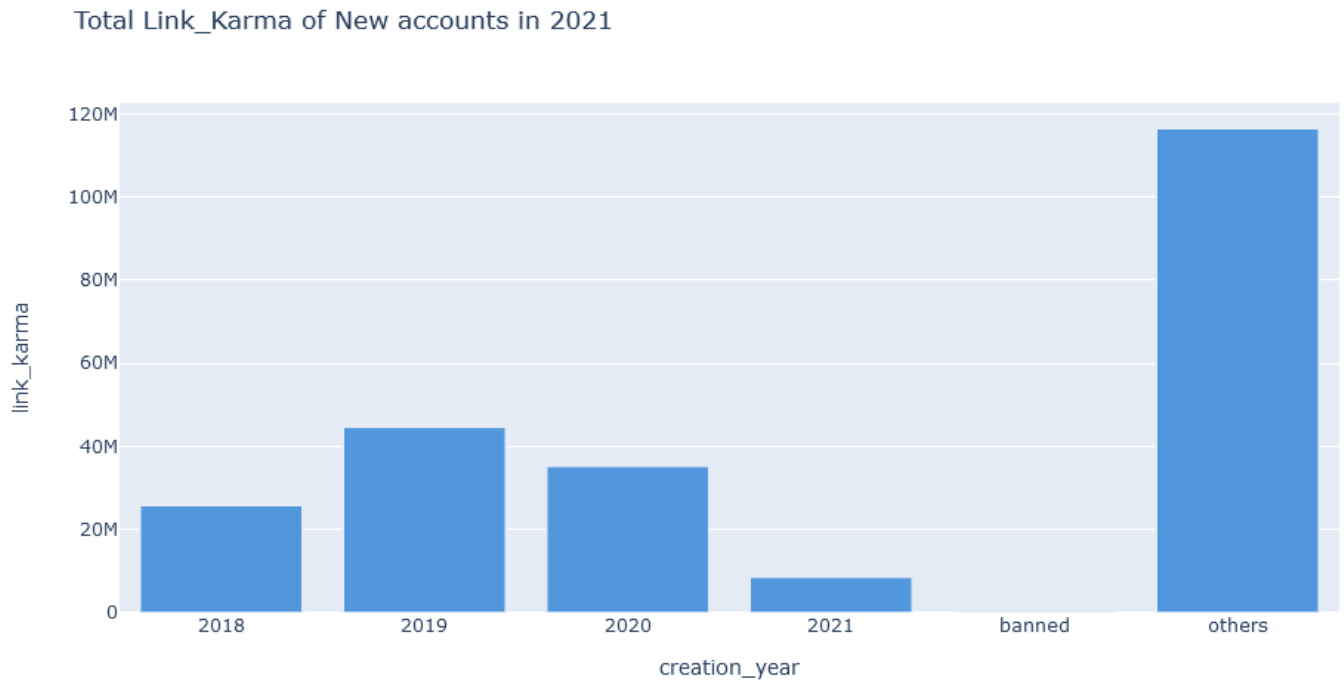
New Vs Others



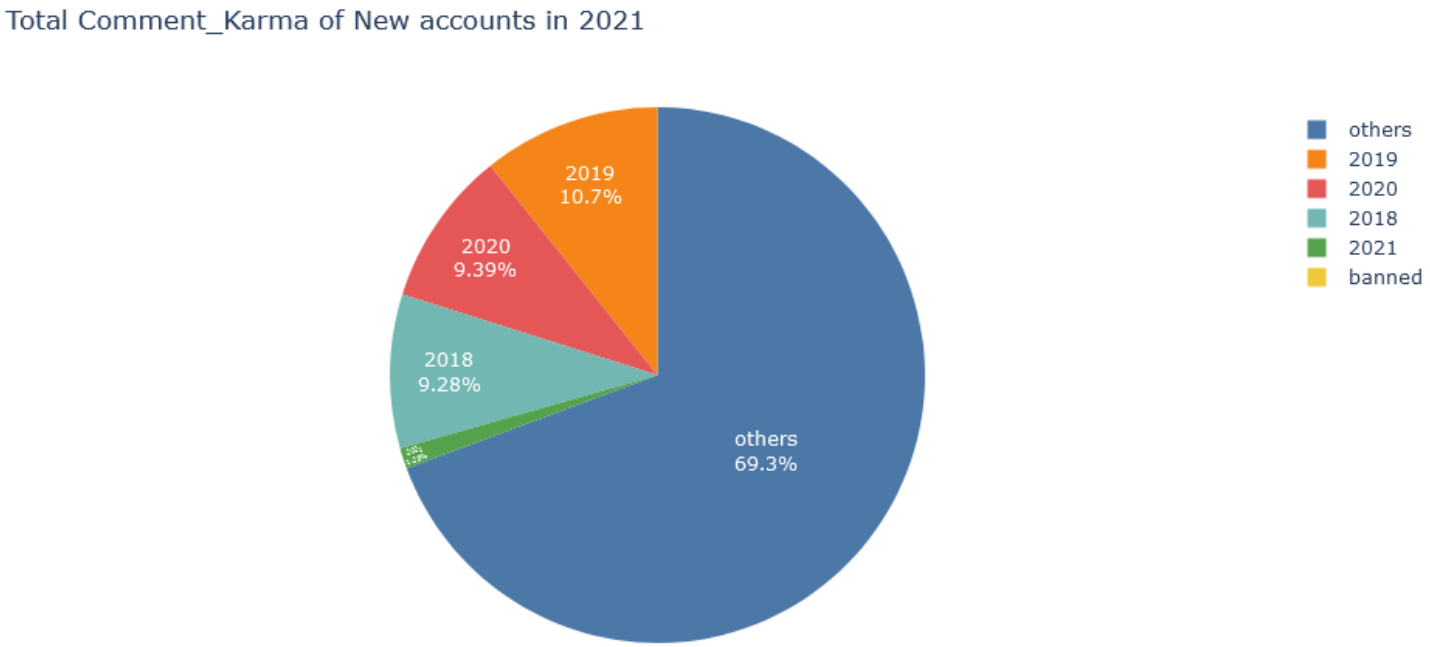


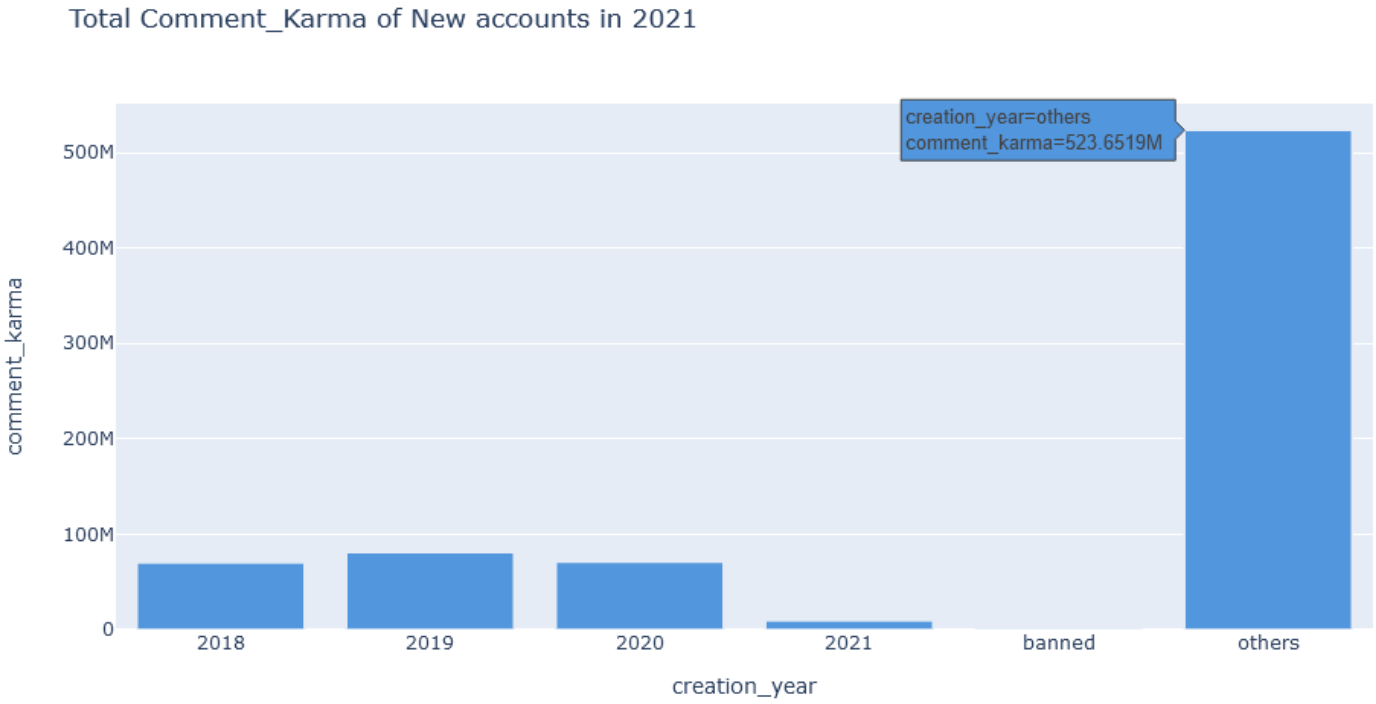
Total Link Karma



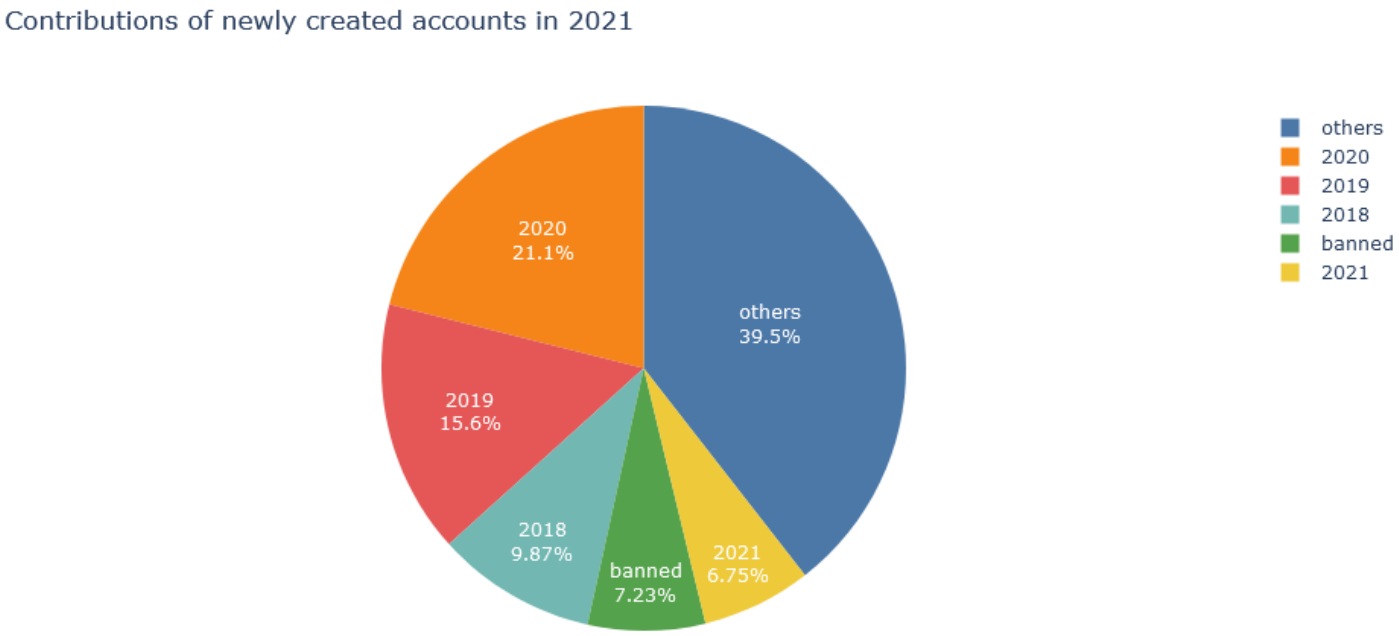


Total Comment Karma



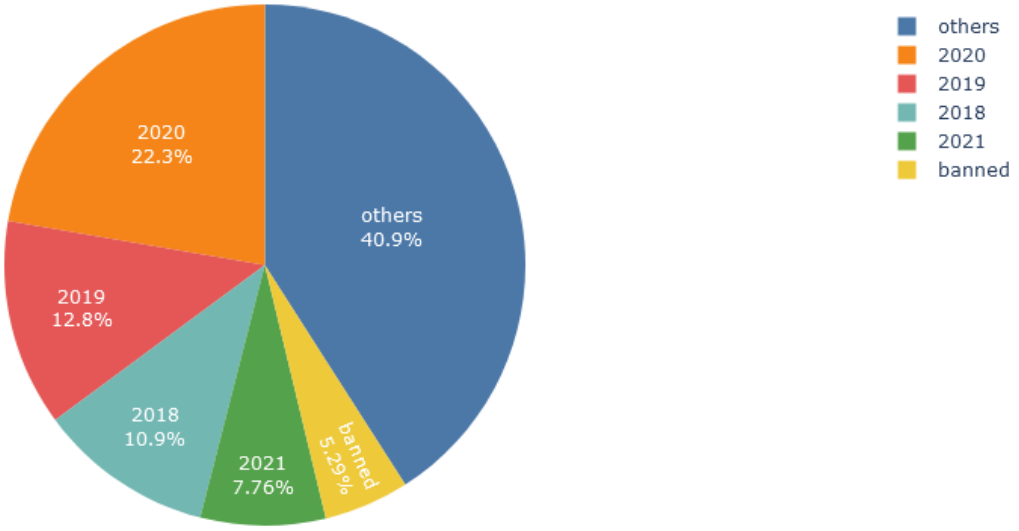


New Accounts Contributions

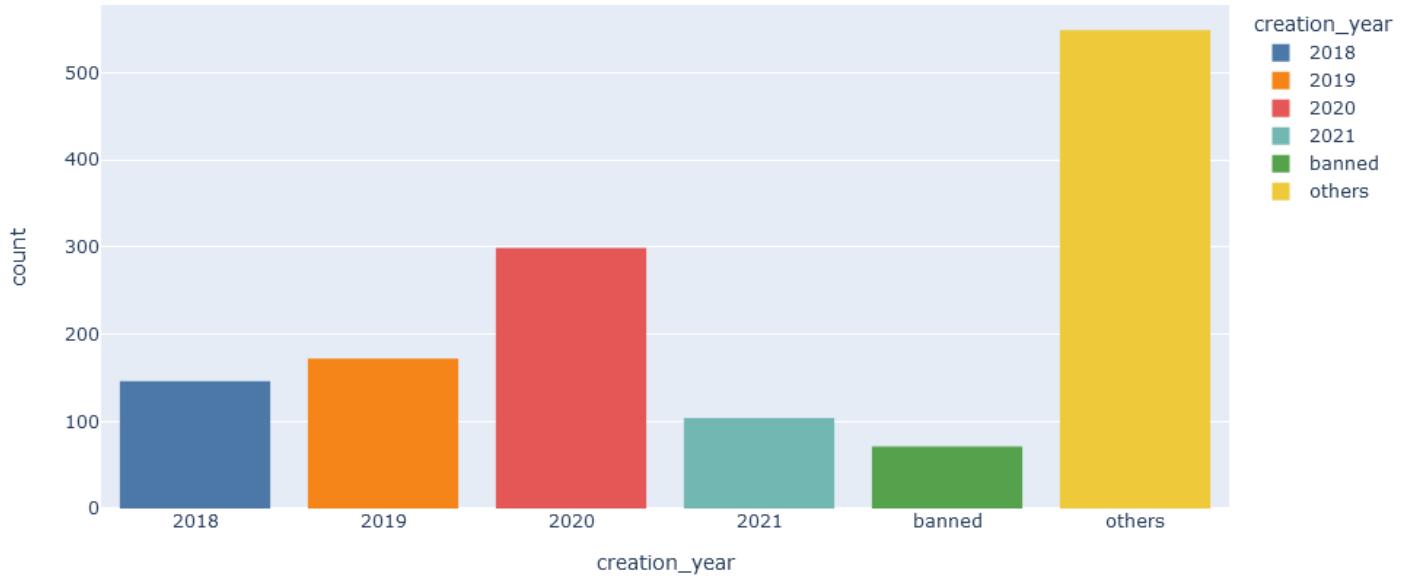


NOTE: More than 60% of 2021 Contributions were made by newly created accounts (last 4 years)

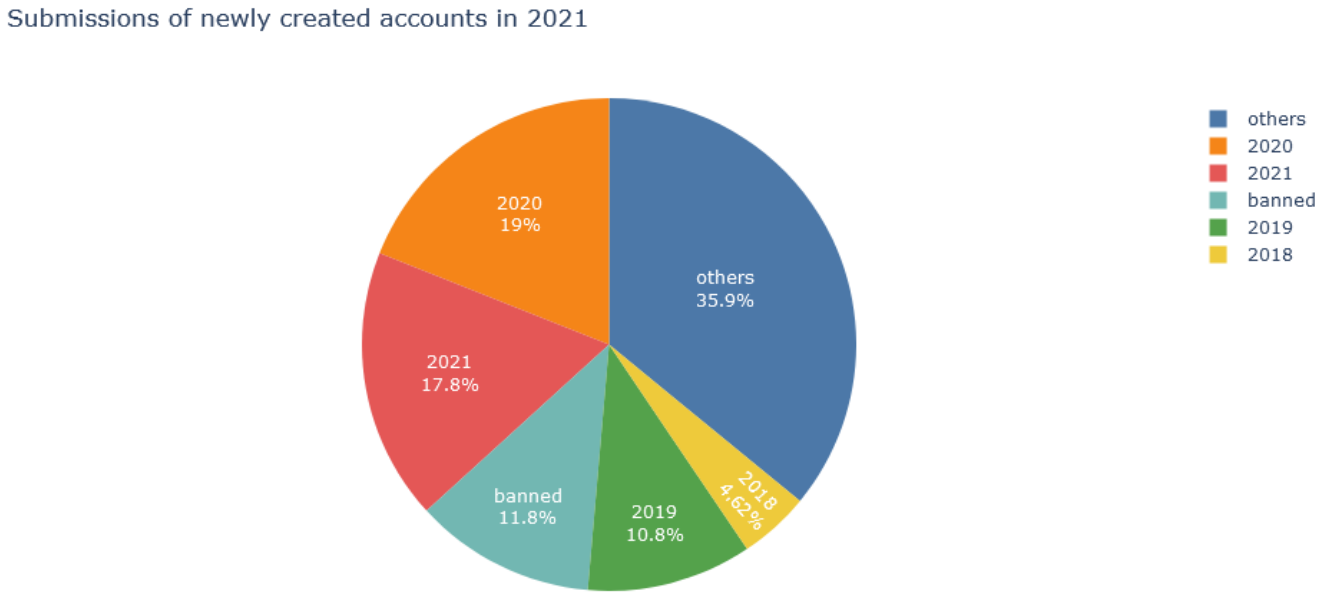
Contributions of newly created accounts on the peak day (2021-04-17)

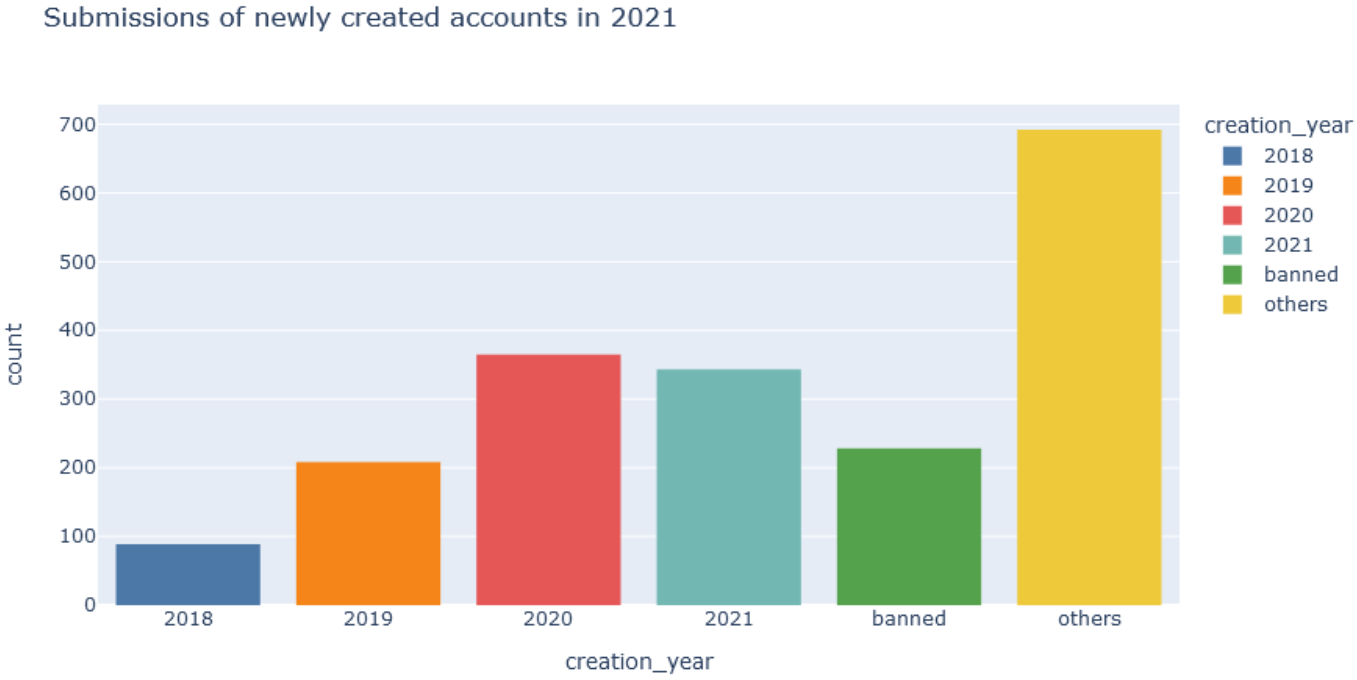


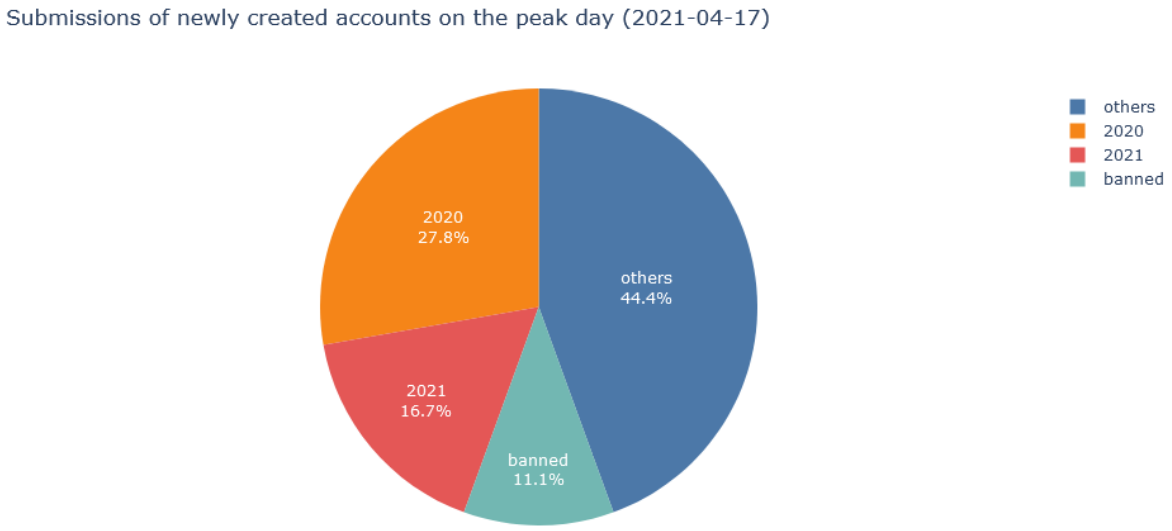
Contributions of newly created accounts on the peak day (2021-04-17)



New Accounts Submissions



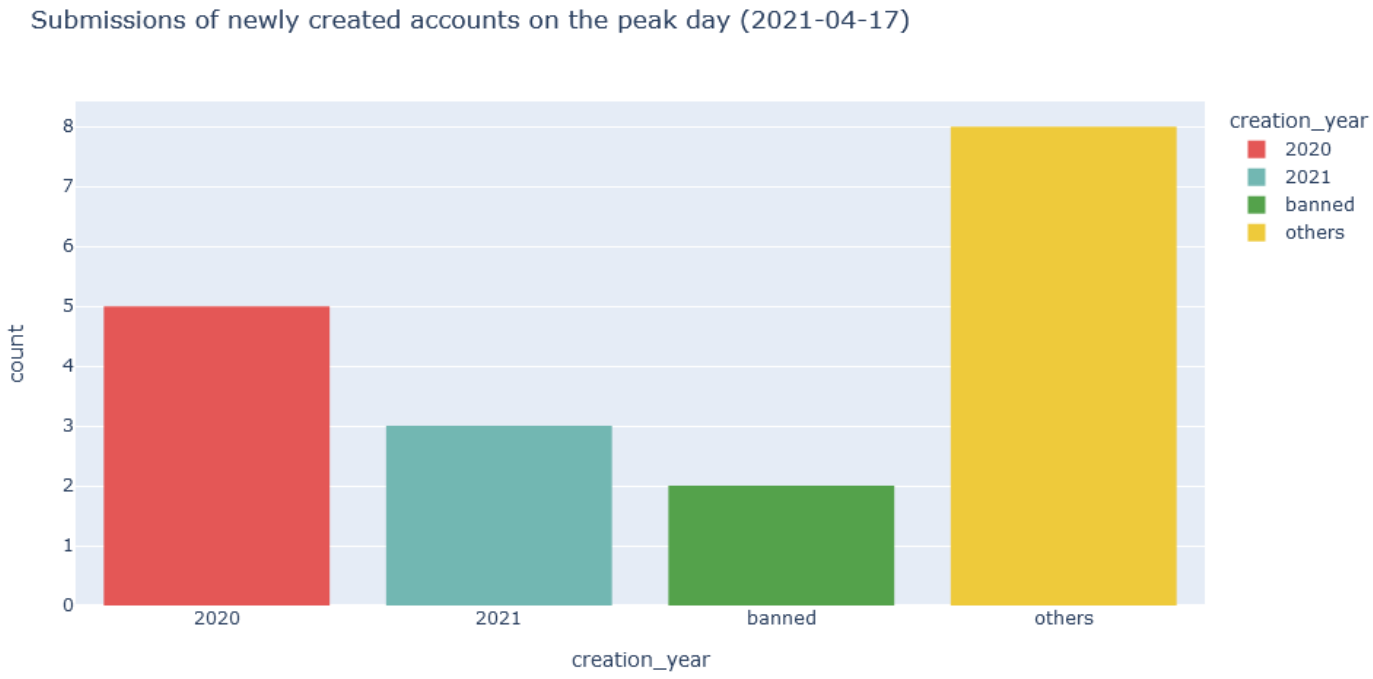




- There are no submissions made (on the peak day of 2021) from 2018, 2019 accounts on that day.

Submissions are only made by accounts created in 2020 & 2021

- We only have 18 submissions on peak day with about 1300 comments and replies



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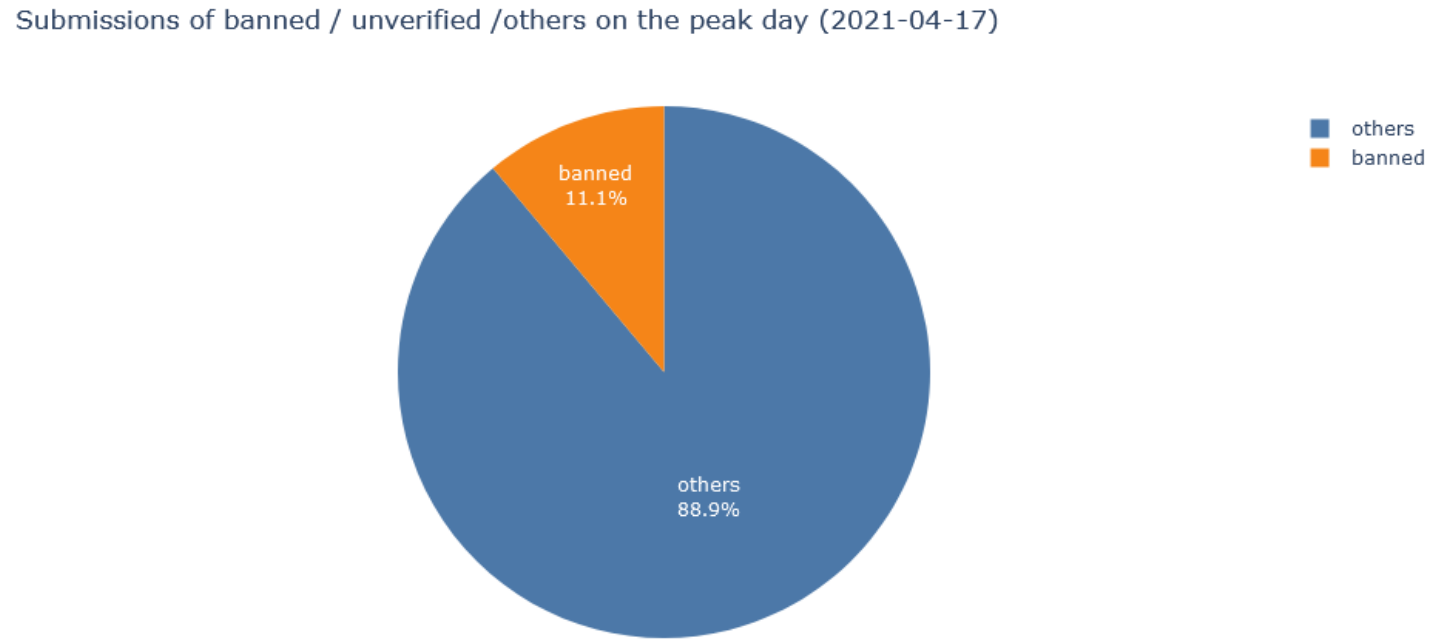
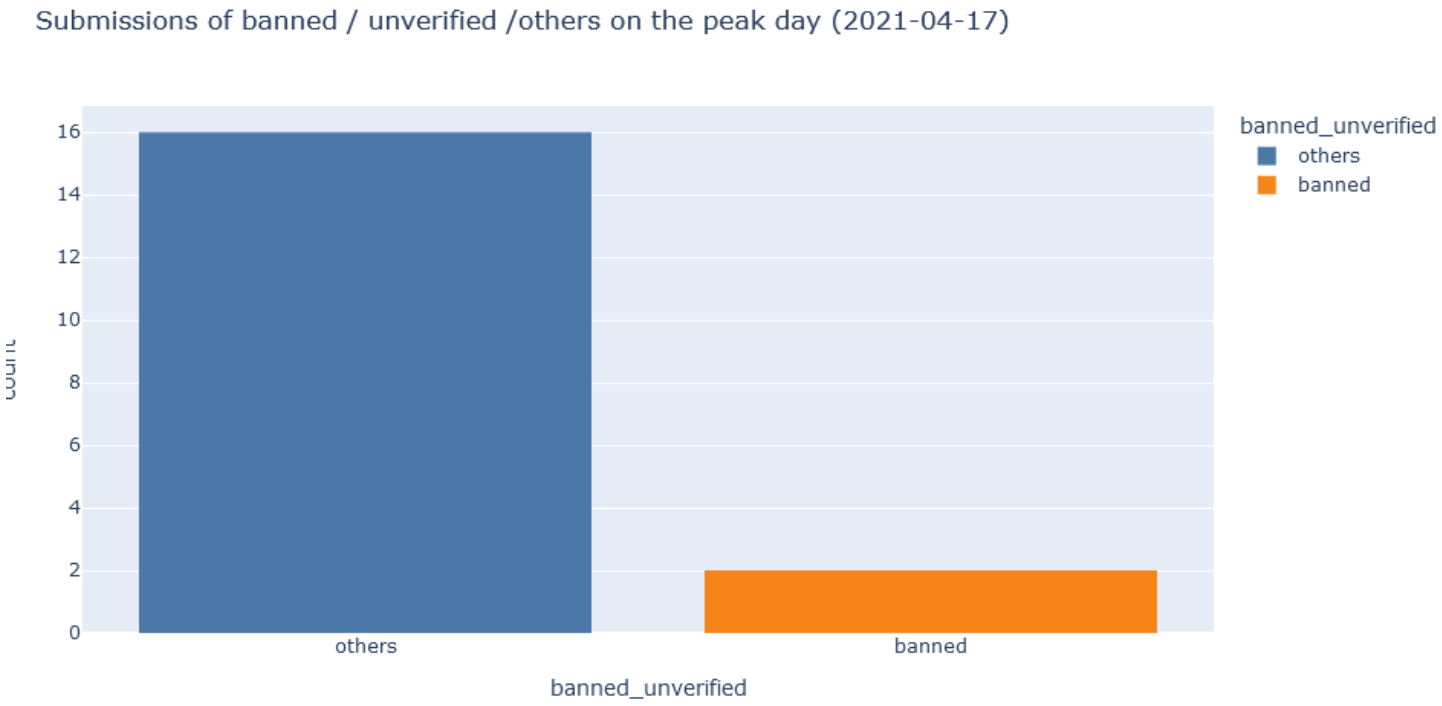
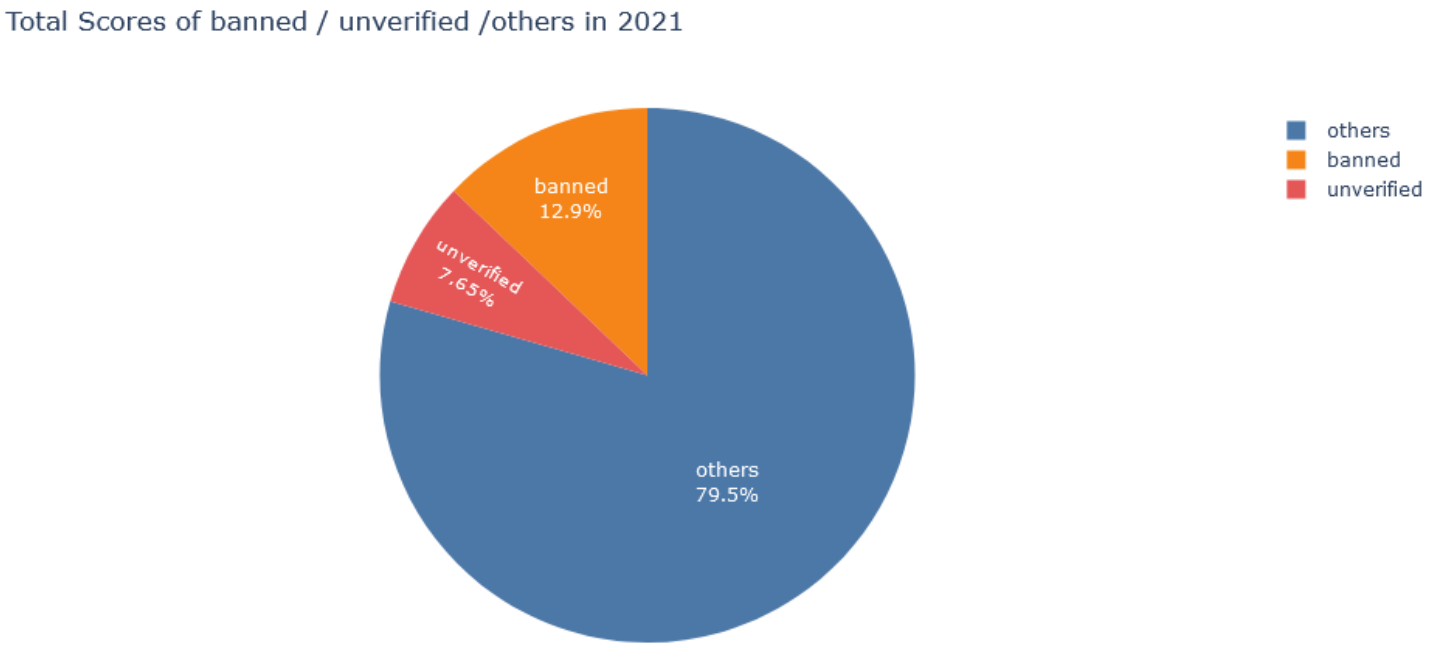
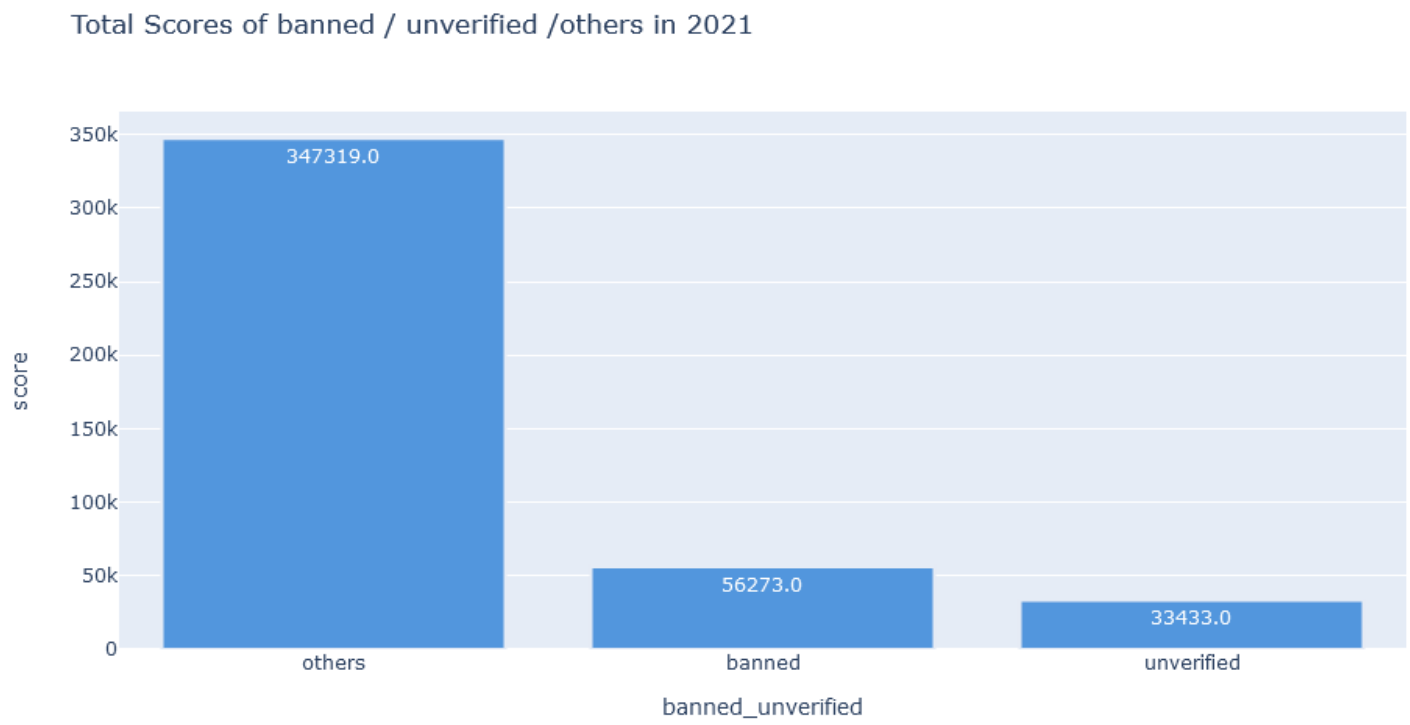
Peak Day Submissions





Total Scores



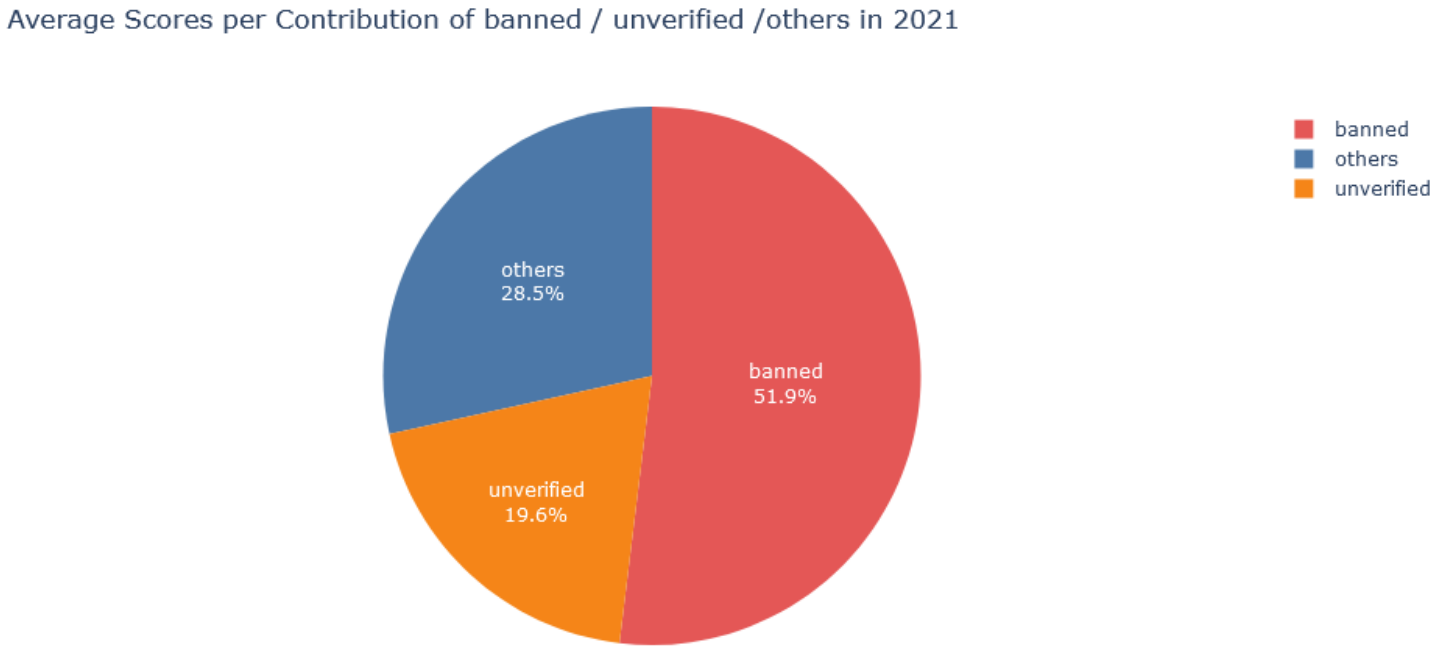


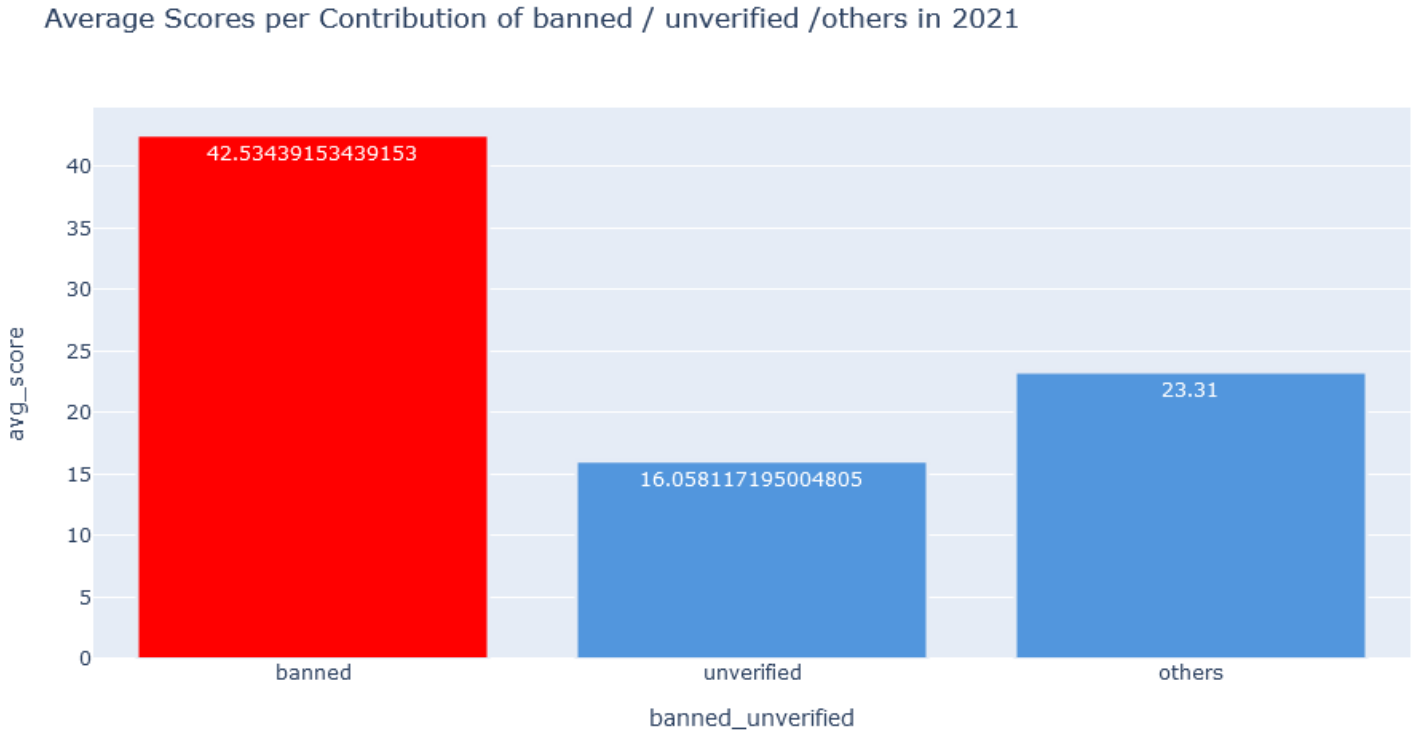
	banned_unverified	score
0	banned	56273.0
1	others	347319.0
2	unverified	33433.0

Average Scores per contribution

	banned_unverified	n_contributions
0	others	14900
1	unverified	2082
2	banned	1323

	banned_unverified	score	n_contributions	avg_score
0	banned	56273.0	1323	42.534392
1	others	347319.0	14900	23.310000
2	unverified	33433.0	2082	16.058117





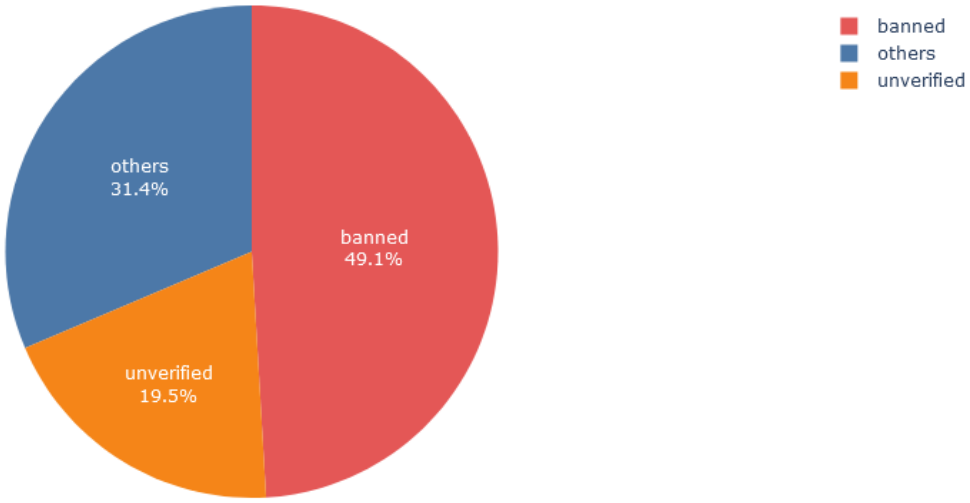
Average Scores per submission

	banned_unverified	n_submissions
0	others	1554
1	banned	228
2	unverified	143

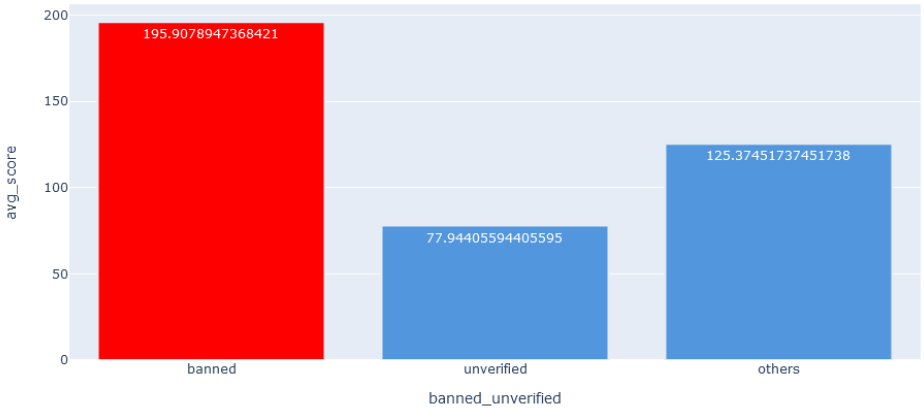
	banned_unverified	score
0	banned	44667.0
1	others	194832.0
2	unverified	11146.0

	banned_unverified	score	n_submissions	avg_score
0	banned	44667.0	228	195.907895
1	others	194832.0	1554	125.374517
2	unverified	11146.0	143	77.944056

Average Scores per Contribution of banned / unverified /others in 2021

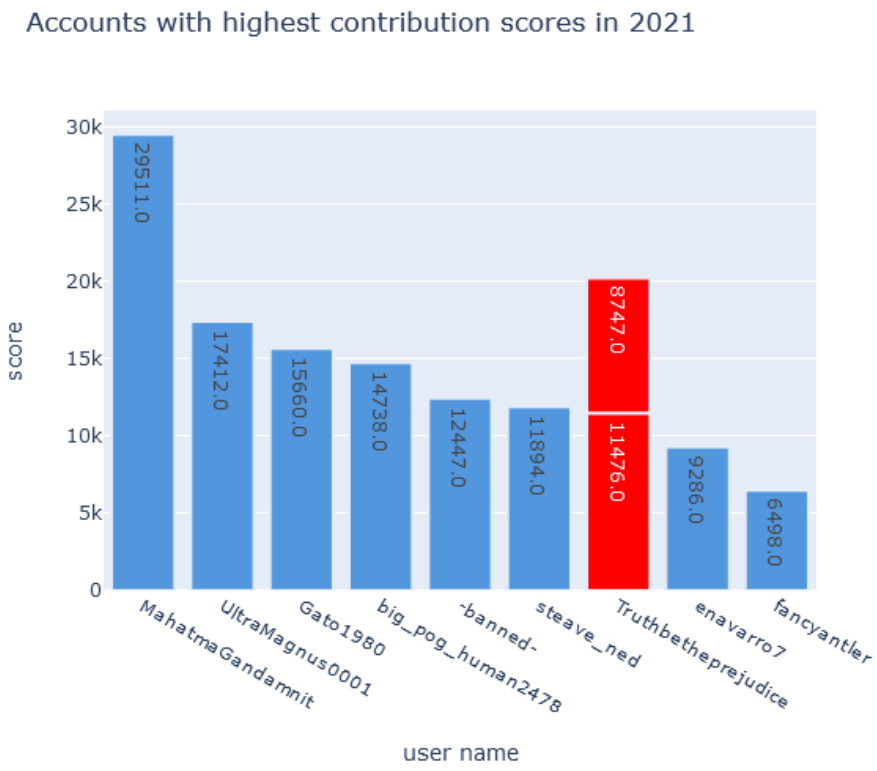


Average Scores per Contribution of banned / unverified /others in 2021



2021 Contributions Scores

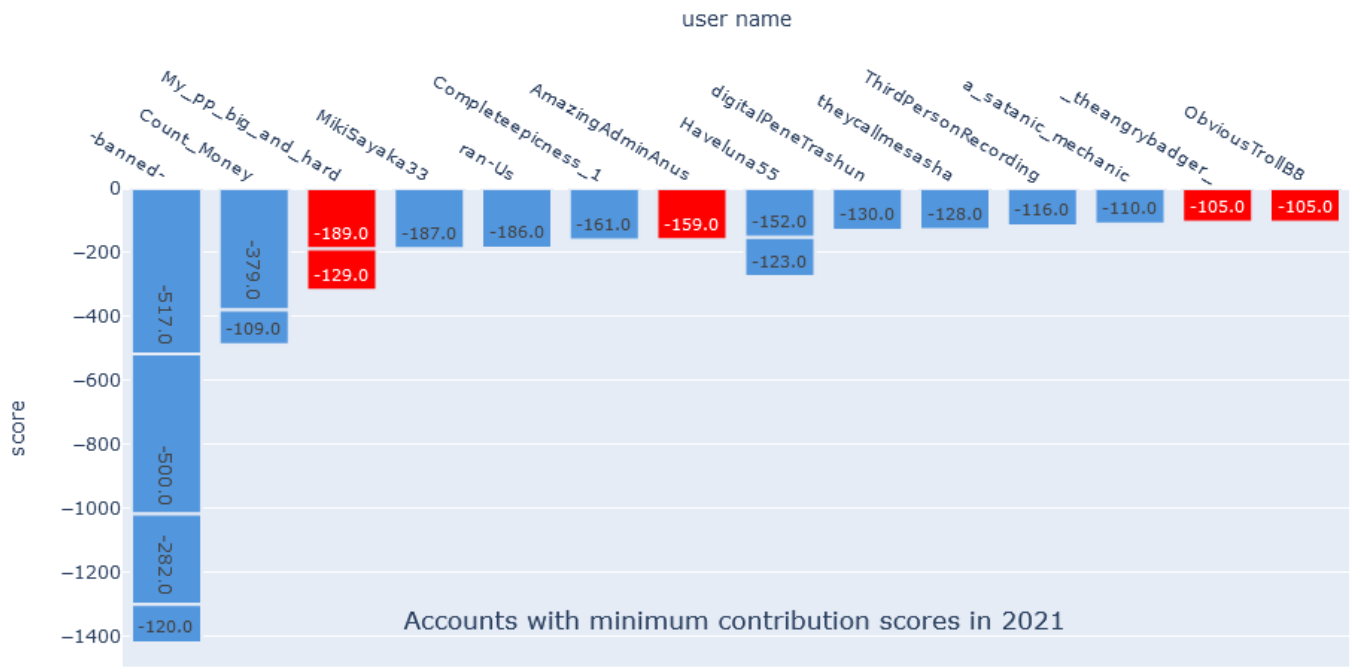
- count 18278.000000
- mean 23.909892
- std 374.406745
- min -517.000000
- 25% 1.000000
- 50% 2.000000
- 75% 6.000000
- max 29511.000000



The red bars indicates banned accounts

- **MahatmaGandamnit**
  - Created on 2016-10-10
  - Has only one negative submission in 2021 (28 Feb) and got the highest contribution scores (29.5K)
  - link.

...	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year	diff	days_after_creation
...	False	False	False	7219.0	10995.0	2016-10-10 00:01:25	others	others	1602 days 03:50:09	1602.0



The red bars indicates banned accounts

- **Count_Money**
  - Created on 2016-07-28
  - Has the minimum contribution scores in 2021
  - Posting sexual comments

...	is_mod	is_gold	is_banned	comment_karma	link_karma	user_created_at	banned_unverified	creation_year	diff	days_after_creation
...	False	False	False	27855.0	52.0	2016-07-28 21:39:06	others	others	1706 days 00:00:44	1706.0

Conclusions

Banned / Unverified Accounts

- 20% of 2021 contributions were made by banned (7.23% --> 1323) and unverified (11.4% --> 2082) accounts.
- 20% of 2021 submissions were made by banned (11.8% --> 228) and unverified (7.43% --> 143) accounts.
- 25% of the peak day contributions (17/04/2021) were made by banned (5.29% --> 71) and unverified (17.5% --> 235) accounts.
- 11% (2 submissions) of the peak day submissions (17/04/2021) were made by banned accounts.

Banned

For the Large Banned Accounts layer, we don't have their Creation Dates/Years, we only have their contributions and scores shown. But we can deduce that from their first submissions/contributions in the data (2018-2021).

Upvoting accounts typically are hidden, but we see e.g., "TruthBeThePrejudice" with high Score counts very unusual for this new account.

Truthbetheprejudice: (banned)

- These user contributions got the highest scores (more than 25K scores in 2021).
- Made 43 submissions in 2021, no comments at all.
- Posting the same submission in more than one subreddit within a few seconds/minutes.
- Most of the submissions were in May, 2021.
- made 4 submissions with the same text "Remove Amber Heard from Aquaman 2" within only 30 seconds!!

The-speed-of-pain: (banned)

- Made 2 submissions with the same text "Remove Amber Heard from Aquaman 2" within only 3 seconds!!

90police: (banned)

- Made 17 submissions in different subreddits within only 5 minutes!! --> (Sexual Content)

My_pp_big_and_hard: (banned)

Has the minimum contributions scores (-400) --> (Sexual Comments)

Unverified

"owenlinx" , "garretdanielkelly" Both users are bots since, they posted more than one different submission with the same submission text

"Amber Heard Touching Herself" in exactly the same second!!(sexual content)

"RoleplayGuy21" , "RoleplayTime21" Two different accounts posting submissions with the same submission text

"Can Somebody RP as Amber Heard for me longterm?".

(sexual content)

Unverified Accounts Contributions in 2021

Accounts Creation Year	n_contributions
2021	9.99% (208)
2020	30.6% (638)
2019	20.6% (428)
2018	10.5% (219)
others	28.3% (589)

Unverified Accounts Submissions in 2021

Accounts Creation Year	n_contributions
2021	21.7% (31)
2020	32.9% (47)
2019	25.2% (36)
2018	3.5% (5)
others	16.8% (24)

New Accounts

- 60% of 2021 contributions were made by newly created accounts (last 4 years).
- 65% of 2021 submissions were made by newly created accounts (last 4 years).
- 60% of the peak day contributions (17/04/2021) were made by newly created accounts (last 4 years).
- 55% of the peak day submissions (17/04/2021) were made by newly created accounts (last 4 years).

New Accounts Contributions in 2021

Accounts Creation Year	n_contributions
2021	6.75% (1236)
2020	21.1% (3859)
2019	15.6% (2857)
2018	9.87% (1807)
banned	7.23% (1323)
others	39.5% (7223)

New Accounts Submissions in 2021

Accounts Creation Year	n_contributions
2021	17.8% (343)
2020	19% (365)
2019	10.8% (208)
2018	4.62% (89)
banned	11.8% (228)
others	35.9% (692)

MahatmaGandamnit

- Created on 2016-10-10
- Has only one negative submission in 2021 (28 Feb) and got the highest contribution scores (29.5K)
- link

Count_Money

- Created on 2016-07-28
- Has the minimum contribution scores in 2021
- Posting sexual comments